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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS; PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

——"VIRESQUE ACQUIRIT EUNDO."——VIRG.

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MDCCXCIX.

G.R. III.

GEORGIUS III
REX

May 1.1790 Published by J.t Sowerby London

SATYRIUM albidum.

White Satyrion.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* an inflated roundiſh bag behind the flower.

SPEC. CHAR. Bulbs faſciculate. Leaves lanceolate. Lip of the nectary three-cleft, acute; the middle ſegment longeſt.

SYN. Satyrium albidum. *Linn. Sp. Pl.* 1338. *Hudſ.* 387. *With.* 31. *Lightf.* 519. *Dickſ. H. Sicc. faſc.* 1. 15.

Orchis palmata thyrſo ſpecioſo, longo, denſe ſtipato, ex viridi albente. *Dill. in Raii Syn.* 382.

FRESH ſpecimens of this rare plant were ſent us in June laſt from Hafod, Cardiganſhire, by Miſs Johnes. It grows copiouſly on the elevated expoſed graſſy hills which ſurround that romantic place, as well as in ſimilar ſituations in Scotland; nor have we ever obſerved it in moiſt meadows, as Hudſon (after Dr. Richardſon in Ray's Synopſis) mentions. Hence I have been led to ſuſpect the propriety of this ſynonym, and whether the preceding *Orchis*, n. 23, which remains unnoticed by late authors, may not rather belong to the plant before us. It muſt be confeſſed, indeed, that the epithet "*odorata*" ſcarcely agrees with *Satyrium albidum*, but neither does "*thyrſo ſpecioſo.*" I have had ſome idea of this n. 23 being the *Orchis ſambucina*, which the Rev. Mr. Wood of Leeds thinks he once found near Snowdon.

The root of *S. albidum* is thus explained by Mr. Sowerby, from the conſideration of ſeveral ſpecimens: *a* a central fibre; *b* one a little above it; *c c* a pair of fibres, one on each ſide; *d d* a pair of old bulbs, the origin of the preſent plant; *e e* a pair of bulbs for next ſeaſon; *f f* a younger pair.

The ſtem is ſcarcely a foot high, roundiſh, leafy. Leaves ſheathing, lanceolate, of a light green, rather glaucous beneath, the lowermoſt broadeſt and moſt obtuſe. Spike of many ſmall greeniſh-white flowers, almoſt inodorous, each of them accompanied by a lanceolate bractea rather longer than the germen. Petals concave, all nearly equal. Spur longer than in moſt of the genus, ſo as almoſt to make it an *Orchis* according to Linnæan rules, and it certainly has great affinity with ſeveral of that genus in other reſpects. Lip green, palmate, with three lobes, of which the middle one is larger, and ſometimes blunter, than the others.

G.R. III.
BRITISH MUSEUM

Curtis 1793 Publ. by W. Curtis Lambeth London

CALTHA paluſtris.

Marſh Marigold.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* 5. *Nectaries* none. *Capſules* ſeveral, with many ſeeds.

SPEC. CHAR. . . . . .

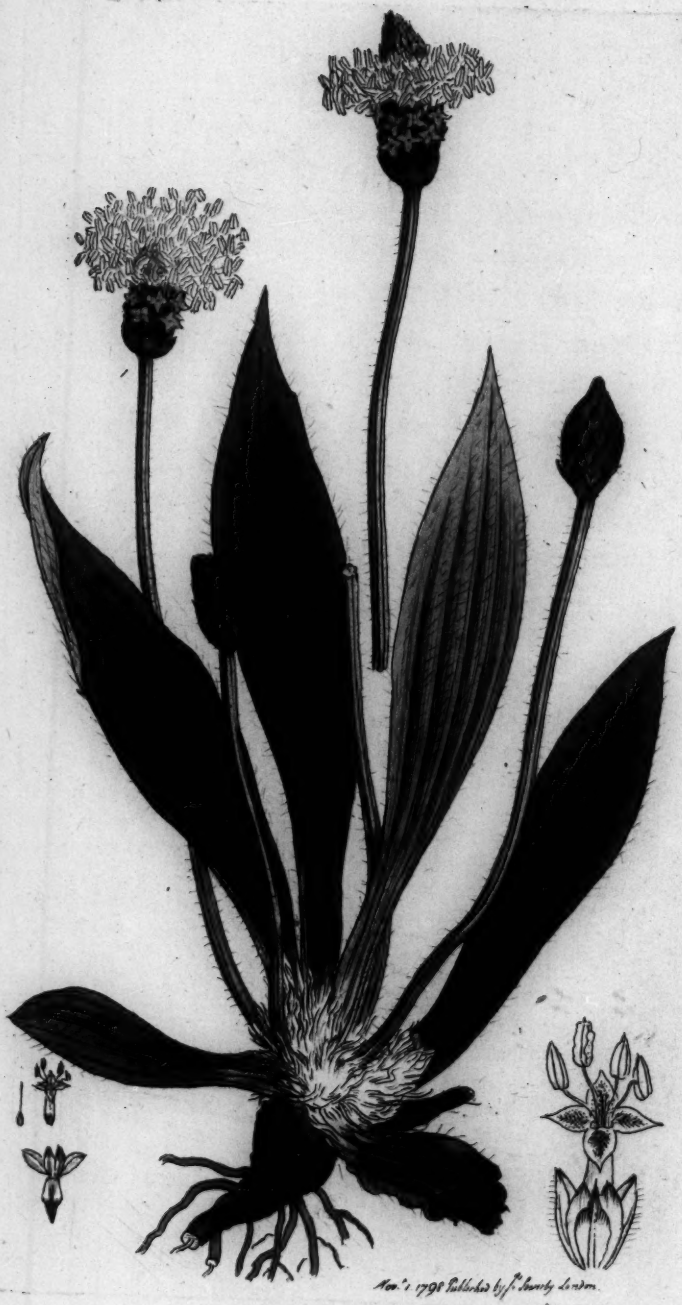
SYN. Caltha paluſtris. *Linn. Sp. Pl.* 784. *Hudſ.* 245. *With.* 511. *Relh.* 217. *Sibth.* 176. *Curt. Lond. faſc.* 1. *t.* 40.

Populago. *Raii Syn.* 272.

CALTHA is one of the ancient names of Marigolds in general, and is retained by Linnæus for this plant with the more propriety, as being derived from *calathus*, a cup, to which the flowers of the marſh marigold have more reſemblance than thoſe of any other kind. The genus of *Caltha*, of which this is the only ſpecies, is greatly allied to *Trollius*, but has fewer petals, and wants the petal-like nectaries of that genus. The *Trollius* has alſo fewer ſeeds in each capſule than the *Caltha*.

This plant is found plentifully in moiſt meadows, and about rivers and brooks, flowering early in the ſpring, when its brilliant bloſſoms make a very ornamental appearance. They are ſometimes found double, and in that ſtate are cultivated in gardens; but the flower in its natural ſingle form is larger, and, to the admirer of genuine Nature, much more beautiful. The root is perennial, and conſiſts of many ſimple fibres. Stem upright, a foot and half high, a little branched, leafy, roundiſh, furrowed. Leaves heart-ſhaped, crenate, veiny, ſmooth, of a deep ſhining green; the radical ones on long ſemicylindrical hollow foot-ſtalks, the others alternate and nearly ſeſſile. Stipula on the inſide of the foot-ſtalk, ſheathing, membranous, ſoon withering. Flowers axillary, ſolitary, on ſimple ſtalks, and conſiſting of five large equal roundiſh concave petals of a golden hue, as are alſo the ſtamina and piſtilla.—The young buds are pickled as a ſubſtitute for capers, which they greatly reſemble in form, and perhaps equal in merit, for both are acrid, and only rendered eatable by the acid pickle. The true caper buds are eaſily diſtinguiſhed by their ſimple germen.

GR III
BRITISH MUSEUM



Nov.r 1798 Published by J.r Sowerby London.

PLANTAGO lanceolata.

Ribwort Plantain.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* four-cleft. *Cor.* four-cleft, inferior; its limb reflexed. *Stamina* very long. *Capſ.* with 2 cells, burſting all round.

SPEC. CHAR. Leaves lanceolate, tapering at each end. Spike ovate, naked. Stalk angular.

SYN. Plantago lanceolata. *Linn. Sp. Pl.* 164. *Hudſ.* 64. *With.* 196. *Relh.* 62. *Sibth.* 56. *Curt. Lond. faſc.* 2. *t.* 10. *Mart. Fl. Ruſt. t.* 67.

P. quinquenervia. *Raii Syn.* 314.

COMMON every where in meadows and paſtures, flowering in June and July, and the root is perennial. The leaves all grow from the root, and are for the moſt part upright; their form is truly lanceolate, pointed, entire, each tapering at the baſe into a long flat footſtalk, ribbed like the leaf itſelf with five ſtrong prominent nerves; they are of a dark green, moſt hairy beneath, and at their inſertion inveſted with long white woolly hair ſpringing from the crown of the root. Stalks erect, growing from among the leaves, and clothed at their baſe with the ſame kind of hair; upwards they are ſmoothiſh, ſimple, round with five deep furrows, twiſted, a little longer than the leaves, and terminated by an ovate ſpike, which is imbricated with black ſcales, and enlivened by the prominent cream-coloured antheræ.

Some farmers have recommended this plant, by the name of rib-graſs, as a good food for ſheep, or to be made into hay for cattle in general. It yields indeed an abundant crop, but it has been ſaid no domeſtic animal will eat it, except mixed with other vegetables; which, if true, is not much in its favour.

Mr. Woodward has obſerved that the ſpike is ſometimes ſurrounded by large leaves, inſtead of the uſual ſmall bracteæ; and we know it to become ſometimes an abortive panicle.

G.R. III.
BRITISH MUSEUM

Hart's engr. published by J. Sowerby, London.

RHODIOLA roſea.

Roſe-root.

DIŒCIA Octandria.

GEN. CHAR. Male. *Cal.* in 4 parts. *Petals* 4. *Nectaries* 4, notched. Female. *Cal. Pet.* and *Nect.* like the male. *Piſtilla* 4. *Capſules* 4, with many ſeeds.

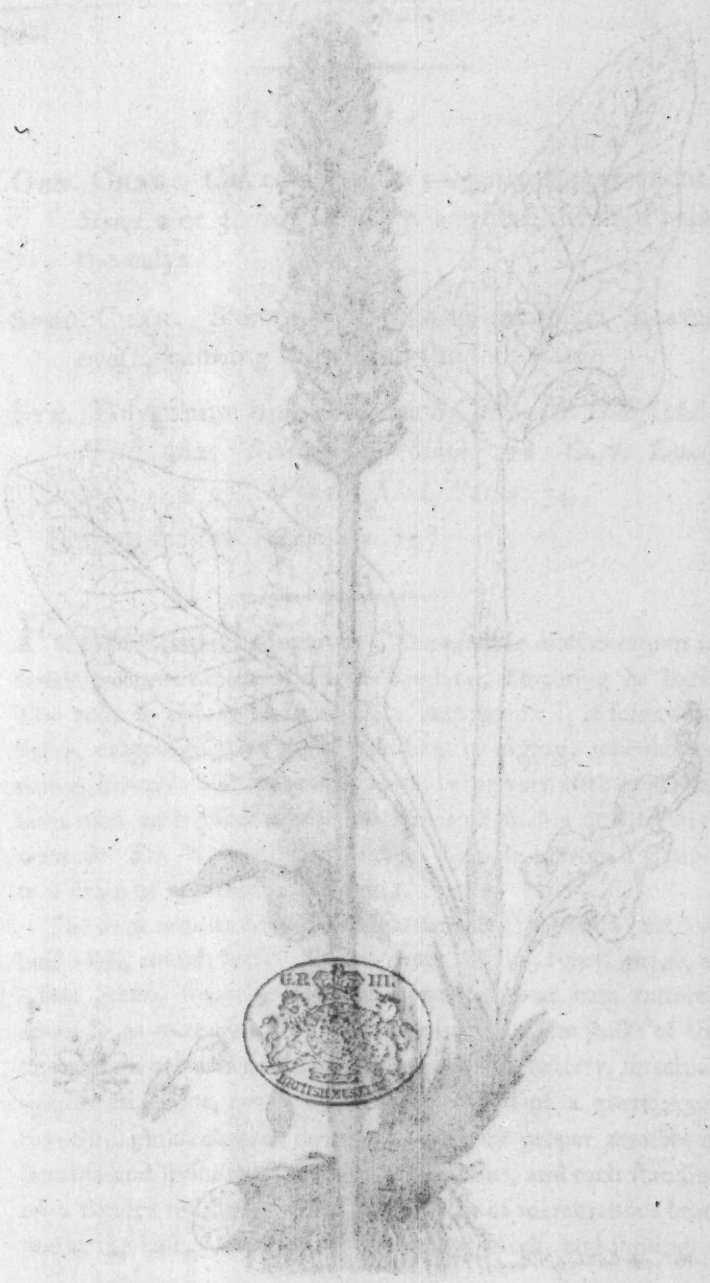
SPEC. CHAR. . . . .

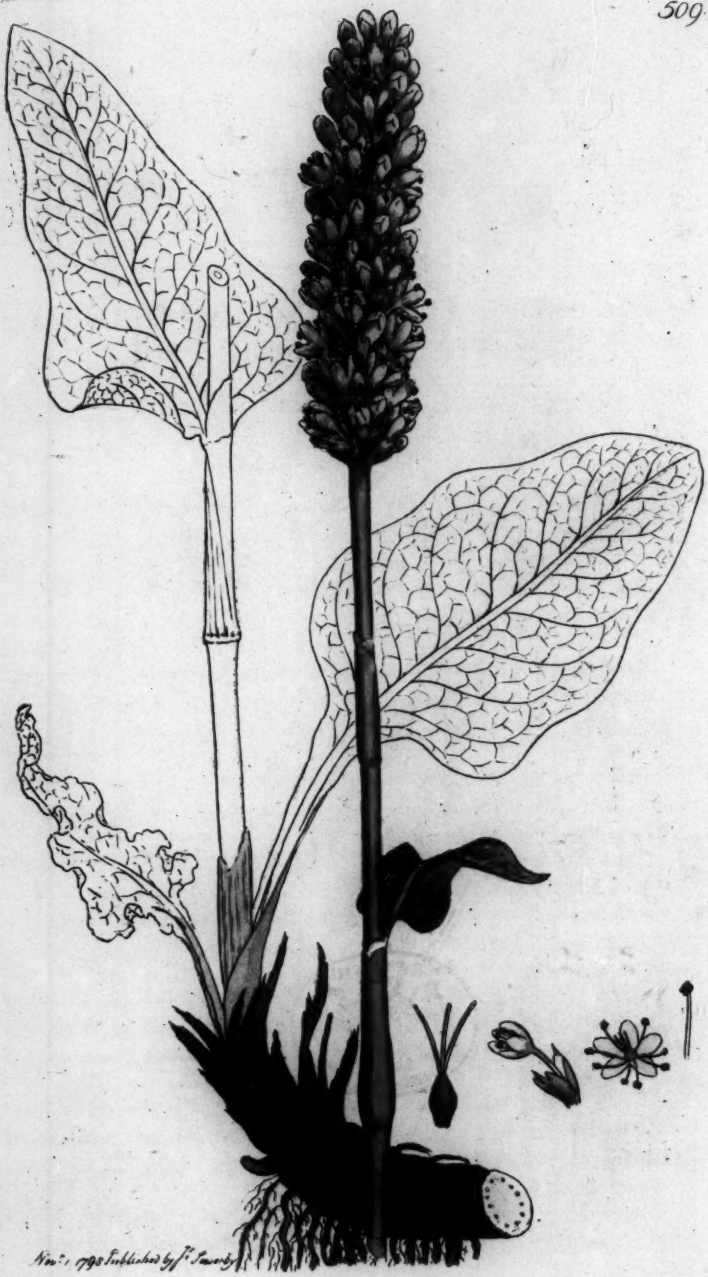
SYN. Rhodiola roſea. *Linn. Sp. Pl.* 1465. *Hudſ.* 434. *With.* 389.

Anacampſeros radice roſam ſpirante major. *Raii Syn.* 269.

GATHERED by Mr. Oliver and the Rev. Mr. Harriman on Maze Beech Scar, Weſtmoreland. We have alſo received wild ſpecimens from rocks on the north end of the iſland of Rathlin on the north coaſt of Ireland, found by J. Templeton, Eſq. It is perennial, flowering in May and June.

Root ſtrong and woody, ſomewhat fleſhy, with a grey ſatin-like bark. When dry it ſmells like roſe-water. Stems ſeveral, ſimple, round, leafy. Leaves imbricated, ſomewhat obovate, pointed, often toothed towards the upper end, very fleſhy, glaucous; in the male tipped with red. Cyme terminal, ſeſſile, much branched. Flowers yellow, generally male and female on different plants, though one of Linnæus's own Lapland ſpecimens appears hermaphrodite, as mentioned in his *Flora Lapponica*, where alſo he tells us that "the females of ſuch ſpecimens are barren like Sarah, while their huſbands the antheræ obtain offspring from the leſs-ſplendidly-attired and unmarried Hagars of another plant," meaning the true female flowers, which have no ſtamina, and none, or but imperfect, petals. Hence Linnæus originally placed the genus in *Polygamia*. It is properly, however, dicœcious. The male flowers have a perfect calyx, corolla, and (as we obſerve) nectaries, with eight or ten ſtamina, and an abortive four-notched germen, which ſometimes grows to the full ſize of the fertile germen. The female flowers have a ſmaller calyx and corolla, more wrinkled and reddiſh, nectaries like the male, no ſtamina, but four or five diſtinct fertile germens, becoming capſules, with many ſeeds. This plant is much allied to *Sedum Telephium*, but cannot be referred to the ſame genus.


G.R. III.



Nov.r 1798 Published by J.r Sowerby

POLYGONUM Biſtorta.

Biſtort or Snakeweed.

OCTANDRIA Trigynia.

GEN. CHAR. *Cal.* coloured, in 5 ſegments, permanent. *Styles* 2 or 3. *Seed* ſolitary, angular, inveſted with the calyx.

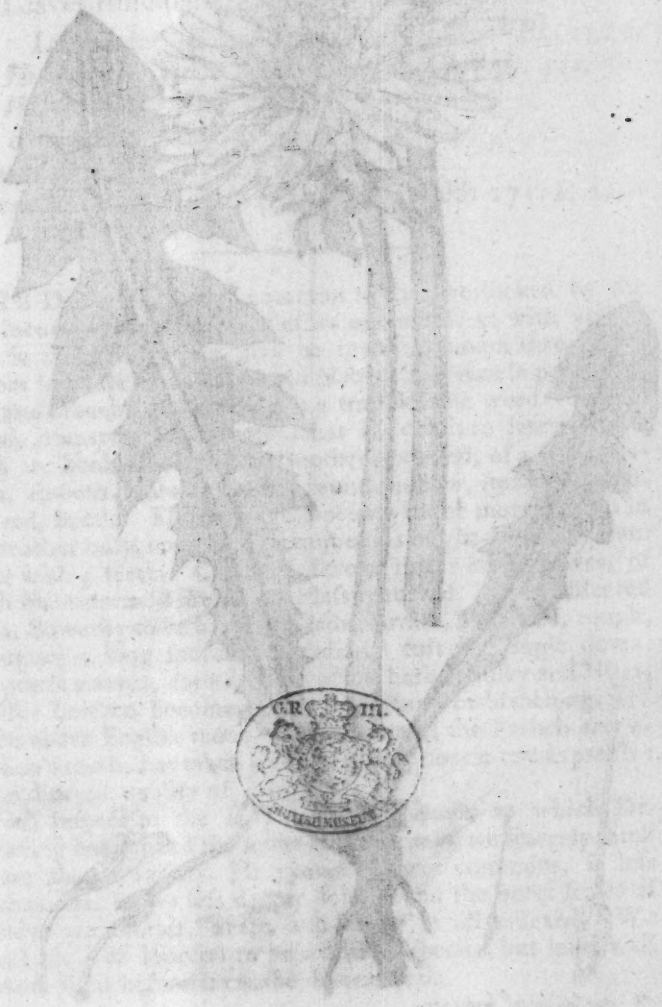
SPEC. CHAR. Stem ſimple, bearing one ſpike. Leaves ovate, running down into the foot-ſtalk.

SYN. Polygonum Biſtorta. *Linn. Sp. Pl.* 516. *Hudſ.* 168. *With.* 382. *Relh.* 158. *Sibth.* 128. *Curt. Lond. faſc.* 1. *t.* 22. *Woodv. Med. Bot. t.* 34.

Biſtorta major. *Raii Syn.* 147.

FROM Batterſea meadows. The plant is moſt common in fertile paſtures of the north of England, flowering in June. The root is perennial, not eaſily extirpated: it is ſomewhat fleſhy, creeping, generally a little bent or zigzag, whence the names *Bis-torta* and ſnakeweed, and, being very aſtringent, has been uſed with effect where medicines of ſuch a quality were wanted. Dr. Woodville informs us the doſe is from a ſcruple to a dram of the root in ſubſtance.

The ſtem is quite ſimple, ſtraight and erect, about a foot and half high, round, leafy. Leaves ovate, waved, veiny, entire, of a fine green, ſmooth, glaucous beneath, their baſe running down ſo as to render the footſtalk winged. The ſtalks of the ſtem-leaves are dilated and ſheathing. Spike ſolitary, terminal, cylindrical, blunt, nearly upright, compoſed of a great many beautiful pink-coloured flowers, having the proper number of ſtamina and ſtyles that belongs to the genus, and each ſtanding on a ſlender red flower-ſtalk, with a pair of membranous bracteæ at the baſe. The ſeed is triangular, black, and ſhining.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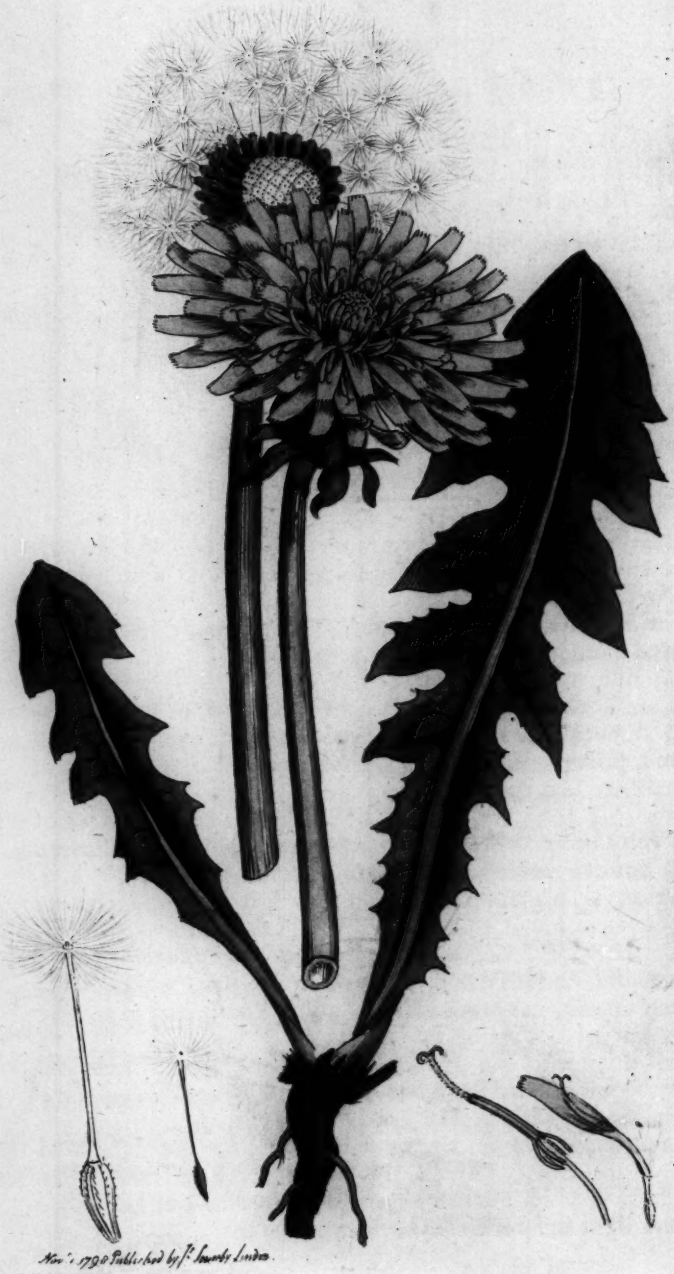


Nov.ʳ 1790 Published by Jᵗ Saunders London.

LEONTODON Taraxacum.

Dandelion.

SYNGENESIA Polygamia æqualis.

GEN. CHAR. *Receptacle* naked. *Calyx* imbricated, with flaccid ſcales. *Down* ſimple, on a footſtalk.

SPEC. CHAR. Outer ſcales of the calyx reflexed. Leaves runcinate, toothed, ſmooth.

SYN. Leontodon Taraxacum. *Linn. Sp. Pl.* 1122. *Hudſ.* 339. *Relh.* 294. *Curt. Lond. faſc.* 1. *t.* 58. *Woodv. Med. Bot. t.* 3.
L. officinalis. *With.* 679.
Taraxacum officinale. *Sibth.* 239.
Dens leonis. *Raii Syn.* 170. *n.* 1. alſo 171. *n.* 2.

THE Dandelion is too common to be overlooked by the moſt incurious botaniſt; it clothes our meadows with yellow early in the ſpring, and may be found in bloom throughout ſummer in waſte or ill-cultivated places. The root is perennial, deep and branching, rendering it a troubleſome weed. Leaves radical, numerous, runcinate (that is, cut into lateral lobes which are hooked backwards), toothed, pointed, of a full graſs-green, ſmooth. Stalks ſimple, round, hollow, ſmooth, ſingle-flowered, brittle. Flower large, opening in the morning and in fine weather only, compoſed of numerous bright-yellow ligulate florets with 5 teeth. Calyx of ſeveral linear entire leaves, of which the outermoſt are more or leſs recurved. Styles obſerved by Mr. Sowerby to be hairy. Seeds obovate, furrowed, rough, bearing on a long footſtalk a radiated tuft of ſimple down. Receptacle convex, dotted. The whole herb is milky and bitter, but, like Lettuce, becomes ſweet by culture, or blanching.

The above Engliſh name, a corruption of the French *dent de lion*, lion's tooth, has taken place of a very coarſe one expreſſive of the diuretic quality of this plant.

With reſpect to the L. *paluſtre* of Lyons, to which Dr. Withering has applied the name of *Taraxacon*, we ſcarcely think it more than a variety. It grows on wet commons, is leſs vigorous, has leaves leſs deeply lobed, and the outer ſcales of the calyx are ſhorter, ovate, and hardly at all reflexed. We ſuſpect the γ of Hudſon to be a diſtinct ſpecies, but muſt wait for more light before it can be determined.

G.R. III.
BRITISH MUSEUM

Nov.1 1798 Published by J.E. Sowerby London

STELLARIA holoſtea.

Greater Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, cloven. *Capſule* of one cell, with many ſeeds.

SPEC. CHAR. Leaves lanceolate, ſerrulated. Petals two-lobed.

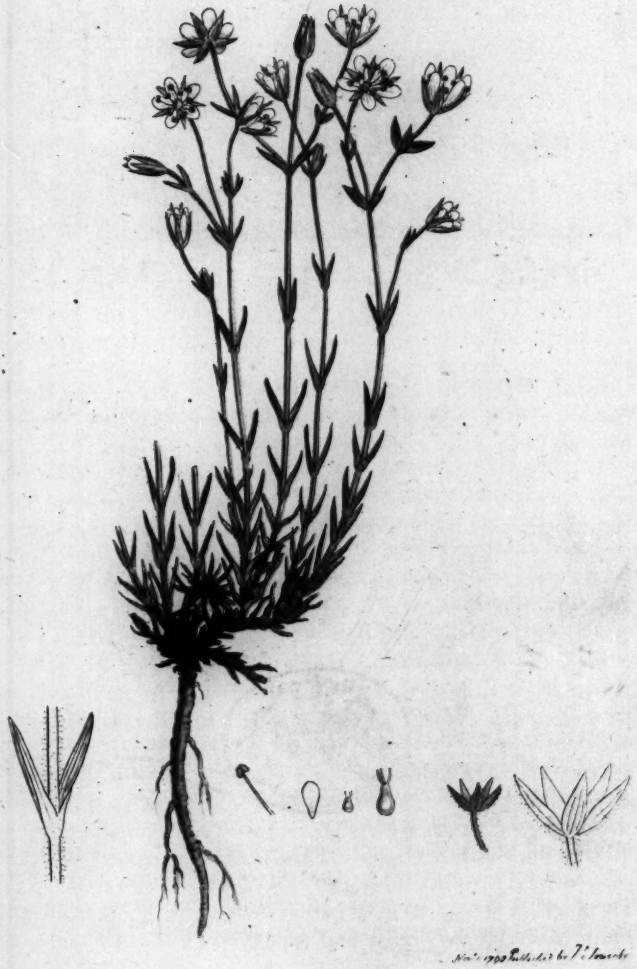
SYN. Stellaria holoſtea. *Linn. Sp. Pl.* 603. *Hudſ.* 190. *With.* 417. *Relh.* 170. *Sibth.* 140. *Curt. Lond. faſc.* 2. *t.* 30. *Dickſ. H. Sicc. faſc.* 7. 6.

Caryophyllus holoſteus arvenſis glaber flore majore. *Raii Syn.* 346.

VERY frequent in groves and about dry hedge bottoms, where its brilliant white ſtarry bloſſoms render it conſpicuous in the ſpring. The herb has ſo much of a graſſy appearance, that old botaniſts have named it the white-flowering graſs.

Root perennial, creeping, ſmall. Stems at their baſe decumbent, ſlender and very delicate, then upright, ſupporting themſelves among buſhes or graſs, otherwiſe the leaſt breath of wind would lay them proſtrate; they are ſquare, jointed, rough at the angles immediately under the joints, leafy, brittle, but with a ſtrong woody ſtructure in their inner part, as is the caſe with moſt of this tribe. Leaves oppoſite, ſeſſile, lanceolate, long and ſharp-pointed, a little revolute, their margins finely ſerrulated, their mid-rib ſharp, their ſurface ſlightly glaucous and deſtitute of all pubeſcence. The ſtem terminates in a forked manner, leafy, ſomewhat panicled, and the flowers grow on long ſolitary ſimple ſtalks from its diviſions. Calyx-leaves lanceolate, a little membranous at the edges. Petals inverſely heart-ſhaped, cloven about half way down. Stamina white with yellow antheræ. Styles ſhorter, blunt and downy. Germen globular. Capſule of nearly the ſame figure, and containing about 6 or 7 kidney-ſhaped brown ſeeds.

G.R
III.



Nov. 1793 Published by J. Sowerby

ARENARIA verna.

Vernal Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſ.* of 1 cell, with many ſeeds.

SPEC. CHAR. Leaves awl-ſhaped, bluntiſh. Stem panicled. Petals longer than the calyx, obovate. Calyx with three remote equal ribs.

SYN. Arenaria verna. *Linn. Mant.* 72. *Hudſ.* 191. *With.* 423. *Lightf.* 231. *Dickſ. Dr. Pl.* 6. *Hort. Sicc. faſc.* 13. 17.

Alſine puſilla, pulchro flore, folio tenuiſſimo noſtras. *Raii Syn.* 350.

THIS *Arenaria* grows plentifully on Arthur's ſeat near Edinburgh, but is moſt abundant about the lead mines of Derbyſhire, on the ſoil thrown out of the mines, which ſcarcely nouriſhes any other plant. From thence our ſpecimens were taken. We have received others from Wales and Durham, by favour of Mr. Griffith and Mr. Robſon. It is perennial, begins flowering in May, and laſts above three months.

The root is very long and ſtrong, deſcending perpendicularly, and branching below. Stems extremely numerous, branched, forming a thick ſpreading tuft, round, thickly clothed with oppoſite leaves, and terminating in upright panicles. Leaves narrow, awl-ſhaped but blunt, three-nerved, connate at their baſe. Bracteæ ovate, ſharp-pointed, three-nerved, concave, broader, but much ſhorter, than the leaves. Flower-ſtalks growing in a panicled manner, but not regularly forked; each is ſingle-flowered, erect, with a pair of bracteæ at its baſe. Calyx-leaves ovate, acute, with a broad whitiſh membranous border, and marked with three equal prominent ribs, which are more remote from each other than in ſome ſpecies. Petals longer than the calyx, obovate. Antheræ reddiſh. Capſule cylindrical. The whole herb, more eſpecially the ſtem, is ſometimes clothed with ſhort viſcid pubeſcence, but the leaves are moſtly ſmooth. The *Arenaria* figured in Gerard, *Flo. Gallopr. t.* 15. *f.* 1. is the *recurva* of Allioni, not hitherto found in England, any more than the true *juniperina* and *laricifolia*.

ARENARIA verna.

Vernal Sandwort.

DECANDRIA Trigynia.

Gen. Char. Cal. 5-leaved, spreading. Petals 5, undivided. Caps. of 1 cell, with many seeds.

Spec. Char. Leaves awl-shaped, blunttish. Stem panicled. Petals longer than the calyx, obovate. Calyx with three remote equal ribs.

Syn. Arenaria verna. Linn. Mant. 72. Huds. 170. Fl. Brit. 483. Engl. Bot. 1231. Dicks. Dr. Pl. 6. Hort. Sicc. fol. 13 & 17.

Alsine parilla, pulchro flore, folio tenuissimo rotundo. Raii Syn. 350.

THIS Arenaria grows plentifully on Arthur's Seat near Edinburgh, but is most abundant about the lead mines of Derbyshire, on the toil thrown out of the mines, which scarcely resembles any other plant. From thence our specimens were taken. We have received others from Wales and Durham, by favour of Mr. Griffith and Mr. Keddon. It is perennial, begins flowering in May, and lasts above three months.

The root is very long and strong, descending perpendicularly, and branching below. Stems numerous, branched, forming a thick spreading tuft, usually thickly clothed with opposite leaves, and terminating in upright panicles. Leaves narrow, awl-shaped but blunt, three-nerved, connate at their base. Branches ovate, sharp-pointed, three-nerved, concave, bracted, but much shorter, than the leaves. Flower-stalks growing in a panicled manner, but not regularly whorled, each is single-flowered, erect, with a pair of bracteas at its base. Calyx-leaves ovate, acute, with a broad whitish membranous border, and marked with three equal prominent ribs, which are more remote from each other than in some species. Petals longer than the calyx, obovate. Anthers reddish. Capsule cylindrical. The whole herb, more especially the stem, is sometimes clothed with short viscid pubescence, but the leaves are mostly smooth. The flowers figured in Curtis, Fig. Gallispar. c. 15, f. 1. is the reverse of Alsine, nor hitherto found in England, any more than the true Lysimachia and Serpyllifolia.

Nov.1 1798 Published by J. Sowerby London

PRIMULA elatior.

Oxlip.

PENTANDRIA Monogynia.

GEN. CHAR. *Capſ.* 1-celled, ſuperior. *Tube* of the *corolla* cylindrical, mouth pervious. *Stigma* globoſe.

SPEC. CHAR. Leaves dentated, wrinkled. Stalk many-flowered. Border of the corolla flat.

SYN. Primula elatior. *With.* 234. *Sibth.* 72. *Symons's Syn.* 53.

P. veris β. *Linn. Sp. Pl.* 204.

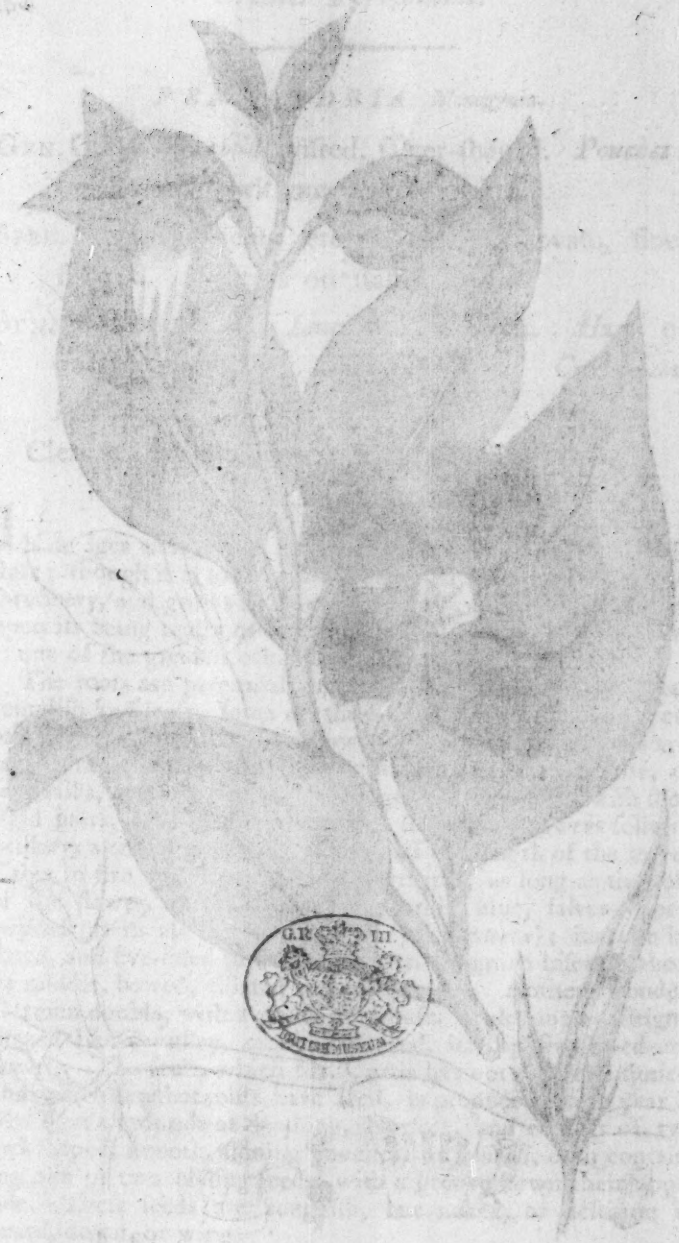
P. vulgaris β. *Hudſ.* 84.

P. inodora. *Relh.* 81.

P. pratenſis inodorata lutea. *Raii Syn.* 284.

THE Oxlip, or Greater Cowſlip, is much leſs frequent than the two moſt common kinds of *Primula* figured in *tab.* 4 and 5 of this work, but nevertheleſs occurs here and there in woods, thickets, or paſtures, flowering in April. We received this ſpecimen from the Rev. Mr. Hemſted, who juſtly obſerves that the flowers are by no means inodorous, but have a very grateful ſmell.

In deſcribing the Primroſe, we expreſſed a ſuſpicion that the Oxlip might be a variety of that rather than of the Cowſlip, or poſſibly an hybrid between the two. We are ſtill much inclined to the latter opinion, and that it has originated from a Primroſe impregnated by a Cowſlip; its external habit, the contraction towards the middle of the leaf, and the umbellate flower-ſtalk indicating (according to Linnæus's ingenious idea) the *father*, while the bloſſom itſelf, in form, colour and ſcent, moſt reſembles its *mother*. See Linn. Diſſ. on the Sexes of Plants, *Lond.* 1786. However this may be, the Oxlip is propagated by ſeed, which is the caſe with ſome other mule plants, as Geraniums. It alſo increaſes faſt by its perennial root. Haller characteriſes it as having only the outer flowers nodding, while thoſe of the Cowſlip all droop; but the flat limb of the corolla affords a much better mark. The ſame author calls the umbel a *racemus*, not from ignorance, but he aimed at conſequence by uſing terms different from thoſe generally adopted.


G.R. III
BRITISH MUSEUM

Nov.1.1790 Published by J.Sowerby London

VINCA major.

Greater Periwinkle.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* twiſted, ſalver-ſhaped. *Pouches* 2, erect. *Seeds* without beard or wing.

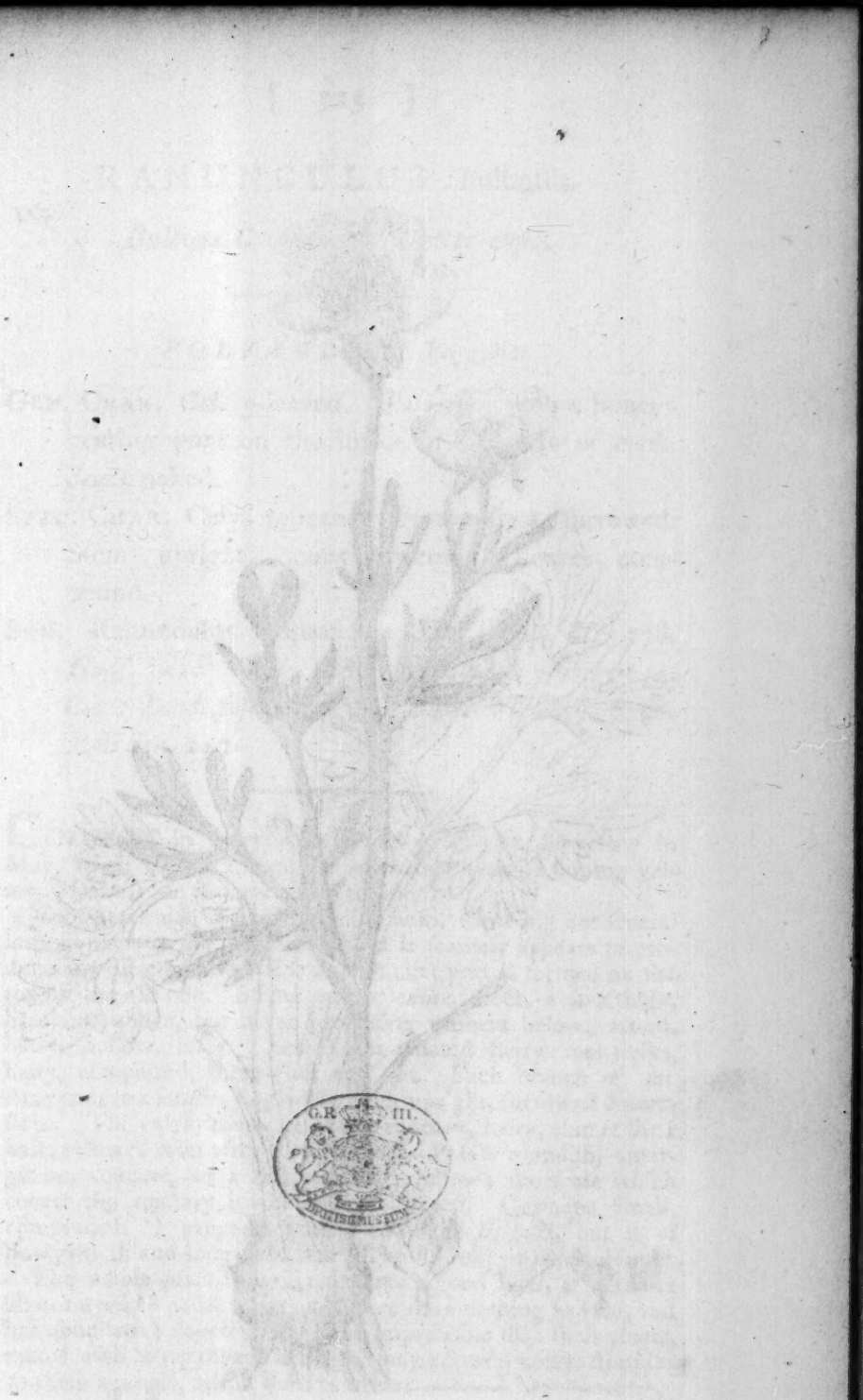
SPEC. CHAR. Stems erect. Leaves ovate, finely fringed. Flowers on ſtalks.

SYN. Vinca major. *Linn. Sp. Pl.* 304. *Hudſ.* 91. *With.* 269. *Relh.* 89. *Sibth.* 79. *Curt. Lond. faſc.* 4. *t.* 19.

Clematis daphnoides major. *Raii Syn.* 268.

IN hedges and groves not very unfrequent in a truly wild ſtate; though it is ſo generally cultivated in every ornamented ſhrubbery, and grows ſo readily, that we cannot always depend upon its being really of native growth. It flowers in May, and is one of the greateſt ornaments of that favourite ſeaſon.

The roots are perennial, creeping; the ſtems alſo, which are roundiſh and leafy, ſome of them trail and throw out roots, others grow erect and bear flowers, but even theſe afterwards take root from near their extremities. Leaves oppoſite, on footſtalks, ovate, entire, finely fringed on their edges with ſhort rigid hairs, otherwiſe ſmooth and ſhining. Flowers ſolitary, axillary, alternate, on ſtalks about half the length of the leaves. Calyx in five awl-ſhaped fringed ſegments, as long as the tube of the flower. Corolla of a fine purpliſh blue, ſalver-ſhaped, twiſted (as in all this natural order of *Contortæ*); its tube inflated, and five-ſided in the upper part. Stamina inſerted about its middle, bowed, ciliated and compreſſed. Antheræ hooded. Germen double, with 2 glands at its baſe. Style ſimple. Stigma ſhaped like a pulley, orange-coloured, its top five-lobed and downy. The fruit, which Mr. Curtis has not even mentioned, and which few botaniſts have ſeen, is produced every year in Mr. Kett's grounds at Seething, Norfolk, and conſiſts of two awl-ſhaped, ſmooth, ſhining pouches, or *folliculi*, each containing one or two oblong ſeeds, with a groove down their upper ſide. Theſe ſeeds are roughiſh, but naked, or deſtitute of beard, down, or wing.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BRITISH MUSEUM

Jan.ʳ 1799 Published by J.ᵉ Sowerby, London

RANUNCULUS bulboſus.

Bulbous Crowfoot. Butter-cups.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inſide of the claw of each. *Seeds* naked.

SPEC. CHAR. Calyx reflexed. Flower-ſtalks furrowed. Stem upright, many-flowered. Leaves compound.

SYN. Ranunculus bulboſus. *Linn. Sp. Pl.* 778. *Hudſ.* 241. *With.* 508. *Relh.* 213. *Sibth.* 173. *Curt. Lond. faſc.* 1. *t.* 38. *Mart. Fl. Ruſt. t.* 28. *Raii Syn.* 247.

COMMON in every paſture and graſs-plat, flowering in May, when the meadows are enamelled with its ſhining yellow bloſſoms in the greateſt profuſion.

Root perennial, a ſolid roundiſh bulb, throwing out ſeveral long fibres from its under ſide, but it ſcarcely appears to produce any offsets; the bulb for the next year is formed on the top of the old one. Stems one or more, erect, a foot high, branched above, but never producing runners below, round, hairy, hollow, leafy. Leaves on dilated hairy foot-ſtalks, hairy, compound, three-cleft and cut. Each branch of the ſtem ends in a ſimple, ſingle-flowered, upright, furrowed flower-ſtalk. The calyx-leaves are ovate, concave, hairy, thin at their baſe, reflexed ſoon after they expand. Petals roundiſh, emarginate, concave, of a full varniſhed yellow; the ſcale which covers the nectary inverſely heart-ſhaped. Germens ſmall, compreſſed. It propagates itſelf copiouſly by ſeed, but is of ſlow growth and long duration. The flowers are rarely double.

The whole plant is acrid; and not a good food, if eaten at all unmixed by cattle; but as Nature does nothing in vain, and has abundant reſources, it is not improbable that ſuch plants, mixed with leſs pungent herbage, may act as a uſeful ſtimulus to theſe animals, as ſalt does to others.

G.R. III.
BRITISH MUSEUM

Jan.ʳ 1799 Published by J. Sowerby London.

RANUNCULUS repens.

Creeping Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, with a honey-bearing pore on the inſide of the claw of each. *Seeds* naked.

SPEC. CHAR. Calyx ſpreading. Flower-ſtalks furrowed. Scyons creeping. Leaves compound.

SYN. Ranunculus repens. *Linn. Sp. Pl.* 779. *Hudſ.* 240. *With.* 509. *Relh.* 214. *Sibth.* 173. *Curt. Lond. faſc.* 4. *t.* 38. *Mart. Fl. Ruſt. t.* 29.

R. pratenſis repens. *Raii Syn.* 247.

FREQUENT in meadows, moiſt paſtures, and eſpecially in ſhady waſte places, flowering in June, July and Auguſt. The fibrous root, and long creeping runners, eaſily diſtinguiſh this Crowfoot from the laſt, of which it is wonderful that any botaniſt ſhould have thought it a variety. The flowering-ſtems are erect, branched and leafy. Leaves rather broader, and more diſtinctly twice ternate than thoſe of the *bulboſus*; they are alſo darker, and often marked with a black ſpot. The calyx-leaves are ſpreading, not reflexed. In other reſpects theſe two ſpecies very much agree, and their qualities are ſimilar. Both bliſter the ſkin, and are very acrid in taſte. R. *repens*, though generally hairy, is ſometimes found ſmooth, particularly on the north ſides of church-yards, and ſuch dank ſhady places.

G.R. III.
BRITISH MUSEUM

Nov.r 1798 Published by J.r Sowerby London

PYROLA ſecunda.

Serrated Winter-green.

DECANDRIA Monogynia.

GEN. CHAR. *Cal.* five-cleft. *Petals* five. *Capſ.* five-celled, burſting at the angles.

SPEC. CHAR. Flowers all leaning one way.

SYN. Pyrola ſecunda. *Linn. Sp. Pl.* 567. *Hudſ.* 176. *With.* 401. *Dickſ. H. Sicc. faſc.* 5. 8.
P. folio mucronato ſerrato. *Raii Syn.* 363.

TO complete our hiſtory of the Britiſh *Pyrolæ*, as far as they are at preſent known, we have obtained wild ſpecimens of the ſpecies now before us by the kind aſſiſtance of James Brodie, Eſq. F.L.S., from the hill of Dunnairn in the Earl of Moray's foreſt of Darnway, in the neighbourhood of Brodie houſe. It is of very rare occurrence in this iſland, growing only under the ſhade of firs in the moſt alpine foreſts. Ray had it from Yorkſhire. It is perennial, and flowers in July.

The roots are ſmall and fibrous. Stems at firſt procumbent, creeping, ſlender, alternately branched, clothed with a few ſcattered lanceolate ſtipulæ; their extremities are angular, leafy and erect. Leaves on longiſh footſtalks, ſpreading, ovate, acute, finely ſerrated, neatly reticulated with veins, ſmooth on both ſides, of a bright pleaſant green. Stalk terminal, erect, ſimple, bearing a few ſcattered lanceolate bracteæ, and terminating in a ſimple cluſter of greeniſh-white flowers, which ſtand on footſtalks, each accompanied by a bractea, a little drooping, and all lean to one ſide. The calyx is ſmall, its edges membranous and ſomewhat lacerated, as are thoſe of the bracteæ. Petals oblong, concave. Stamina equal and uniform, when young crooked, the antheræ bent outwards with their pores downward; when ripe the filaments become ſtraight, the antheræ bent inwards, and their pores are uppermoſt, according to Mr. Sowerby's remark. The germen and capſule are depreſſed, with five furrows. Style long, ſtraight, permanent, with a large, depreſſed, five-lobed ſtigma. The ſeeds are very minute and chaffy.

The other Britiſh ſpecies of this genus are deſcribed in our 3d volume.

G.R. III
BRITISH MUSEUM

Nov.1 1790 Published by Jas Sowerby London

OROBUS ſylvaticus.

Wood Orobus, or Bitter Vetch.

DIADELPHIA Decandria.

GEN. CHAR. *Style* linear, downy above. *Calyx* blunt at the baſe, its upper ſegments deeper and ſhorter.

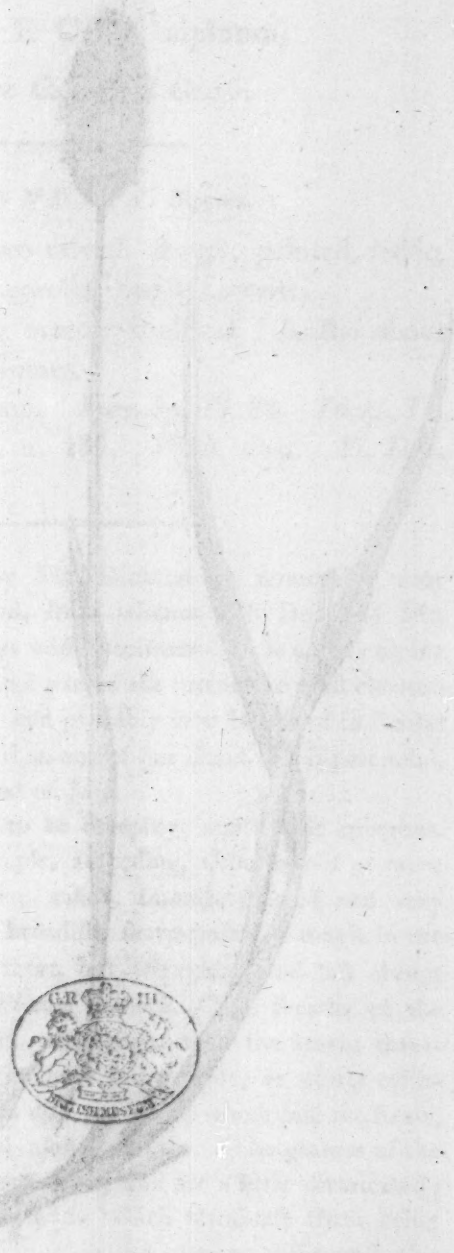
SPEC. CHAR. Stems lying down, hairy, branched. Leaflets numerous.

SYN. Orobus ſylvaticus. *Linn. Sp. Pl.* 1029. *Hudſ.* 314. *Lightf.* 390. *t.* 16. *With.* 630. *Dickſ. H. Sicc. faſc.* 1. 12.

O. ſylvaticus noſtras. *Raii Syn.* 324.

GATHERED by Mr. P. Harriſon, druggiſt, of Darlington, at Gambleſby, Cumberland (where Ray found it), and ſent to us by Mr. Robſon. It has alſo been found at Hafod, Cardiganſhire, by Mr. Todd, the intelligent gardener of T. Johnes, Eſq.; nor does it appear to be very rare in the mountainous (not alpine) woods and thickets of Wales and Scotland. It flowers in May or June, and the ſeeds are quite ripe in July.

Root ſtrong and perennial, producing a great number of ſpreading ſtems, which lie almoſt proſtrate; they are angular, a little hairy, leafy, at firſt ſimple, but after flowering ſhort leafy branches grow out of the boſoms of the leaves above the flower-ſtalks. The leaves are alternate, with a pair of half-arrow-ſhaped ſtipulæ at their baſe, and conſiſt of numerous, moſtly oppoſite, oblong, pointed leaflets, without a terminal one. Flowers in cluſters, on ſolitary, axillary, ſimple, long, many-ſided ſtalks. Each flower ſtands on a reddiſh drooping bracteated partial ſtalk. The calyx is rather more hairy than the ſtalks, but the hairineſs of the whole herb is variable. The figure of Lightfoot however, as Mr. Robſon obſerves, repreſents it too hairy all over. The flowers are of a delicate cream-colour, ſtreaked and tinged with purple; the keel in particular is tipped with the laſt-mentioned colour. The pods are compreſſed, ſmooth, of a light brown, and contain from one to three ſeeds.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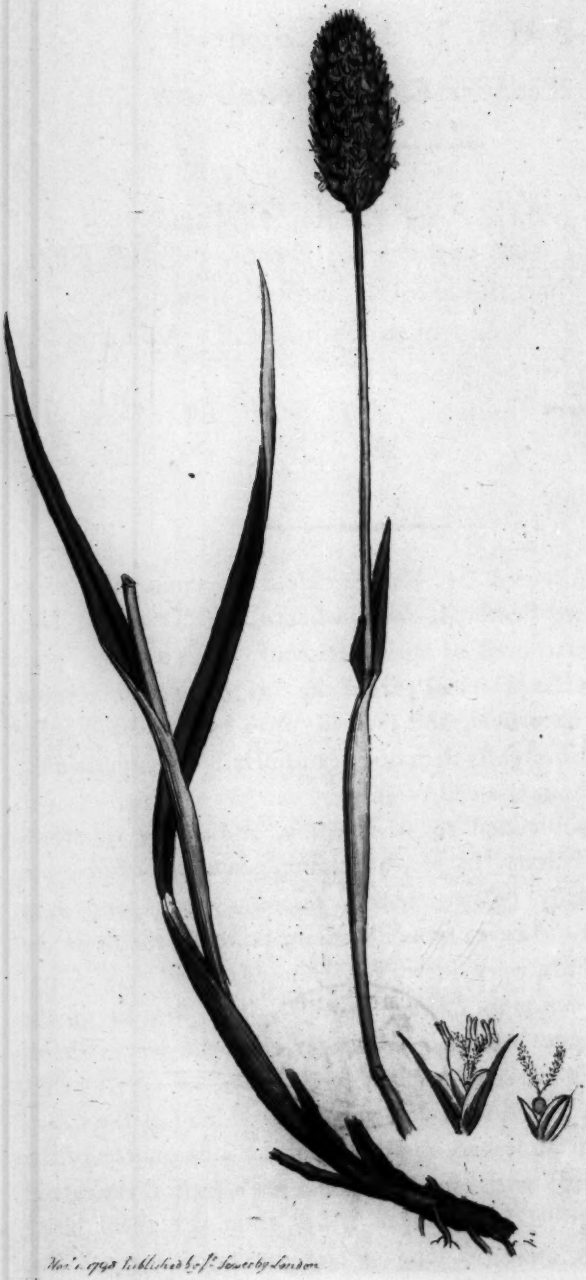


Nov.1.1793 Published by J.F. Sowerby London

PHLEUM alpinum.

Alpine Cat's-tail Graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* two-valved, abrupt, pointed, ſeſſile, longer than the corolla, ſingle flowered.

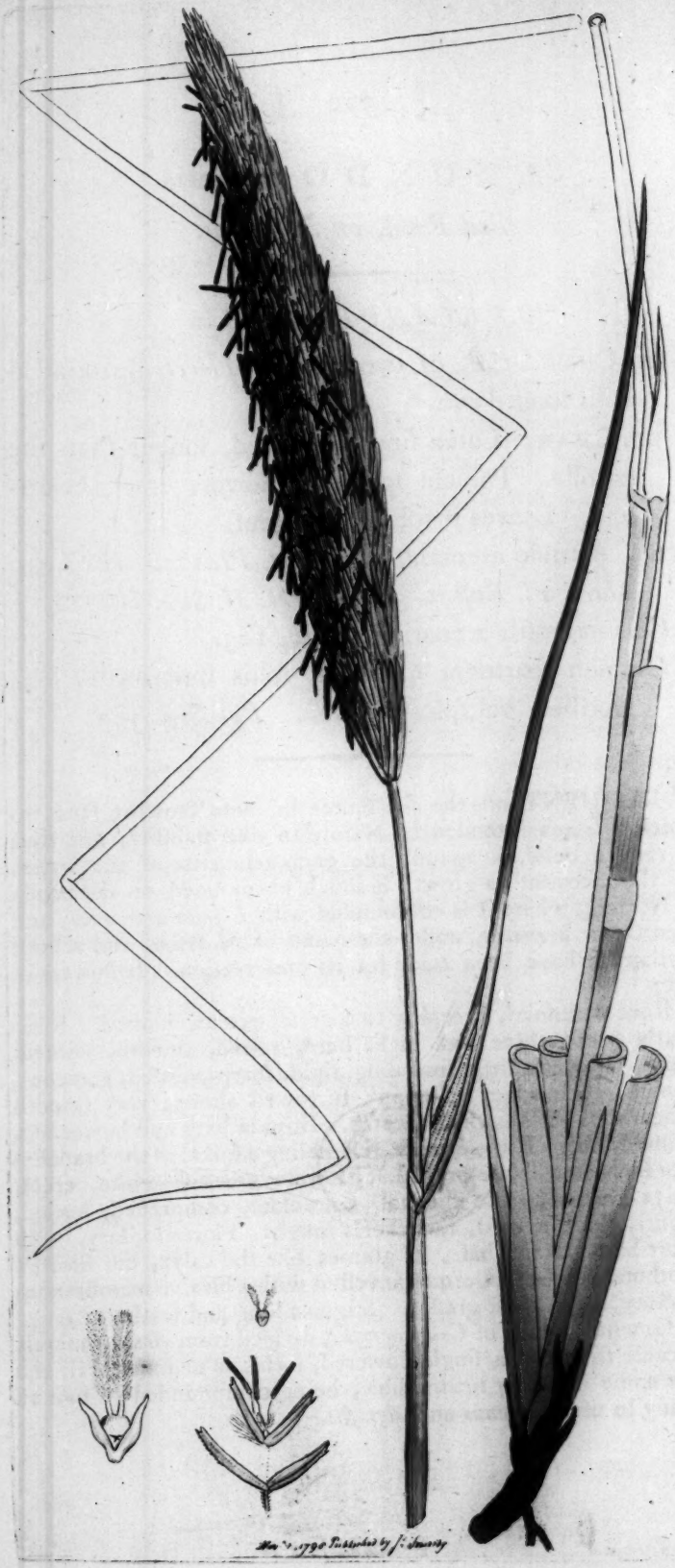
SPEC. CHAR. Spike ovato-cylindrical. Ariſtæ about as long as the glumes.

SYN. Phleum alpinum. *Linn. Sp. Pl.* 88. *Dickſ. Tr. of Linn. Soc. v.* 2. 288. *With.* 119. *Fl. Dan. t.* 213.

FIRST diſcovered by Mr. Dickſon on mountains near Garway Moor, Scotland, from whence Mr. Don and Mr. Mackay have favoured us with ſpecimens. It is a truly alpine graſs, making the principal part of the turf in the moſt elevated paſtures of Switzerland, and probably is to be found in ſimilar ſituations in more parts than one of our iſland. It is perennial, and flowers about the end of July.

The root is inclined to be creeping, and a little tuberous. Stem moſtly ſolitary, ſimple, aſcending, about a foot or more in height; leafy below; naked, ſmooth, ſtriated and very ſtraight above. Leaves broadiſh, ſharp-pointed, rough in the margin. Stipulæ very ſhort, but triangular, and leſs abrupt than in the common *Phleum pratenſe*. The ſheaths of the upper leaves are inflated, and longer than the leaves themſelves. Spikes ſcarcely an inch long, ovate, or nearly cylindrical, obtuſe, tinged with dull purple, of which hue the ſtraw, and ſheaths of the leaves, moſtly partake. The glumes of the calyx are ciliated with long hairs, and are a little divaricated; their keel is green. The *ariſtæ* which terminate them being almoſt, if not quite, as long as the glumes, diſtinguiſh this ſpecies from the *pratenſe*. The corolla conſiſts of two unequal valves, of which the largeſt is ribbed and bearded.

G.R. III.
BRITANNIARUM REX F.D.



Mar. 1.1790 Published by J. Sowerby

ARUNDO arenaria.

Sea Reed, or Marram.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of two valves. *Florets* ſurrounded with long down.

SPEC. CHAR. Calyx ſingle-flowered, longer than the corolla. Panicle ſpiked. Flowers erect, beardleſs. Leaves involute, pungent.

SYN. Arundo arenaria. *Linn. Sp. Pl.* 121. *Hudſ.* 54. *Mart. Fl. Ruſt. t.* 32. *Dickſ. H. Sicc. faſc.* 12. 5.

Calamagroſtis arenaria. *With.* 123.

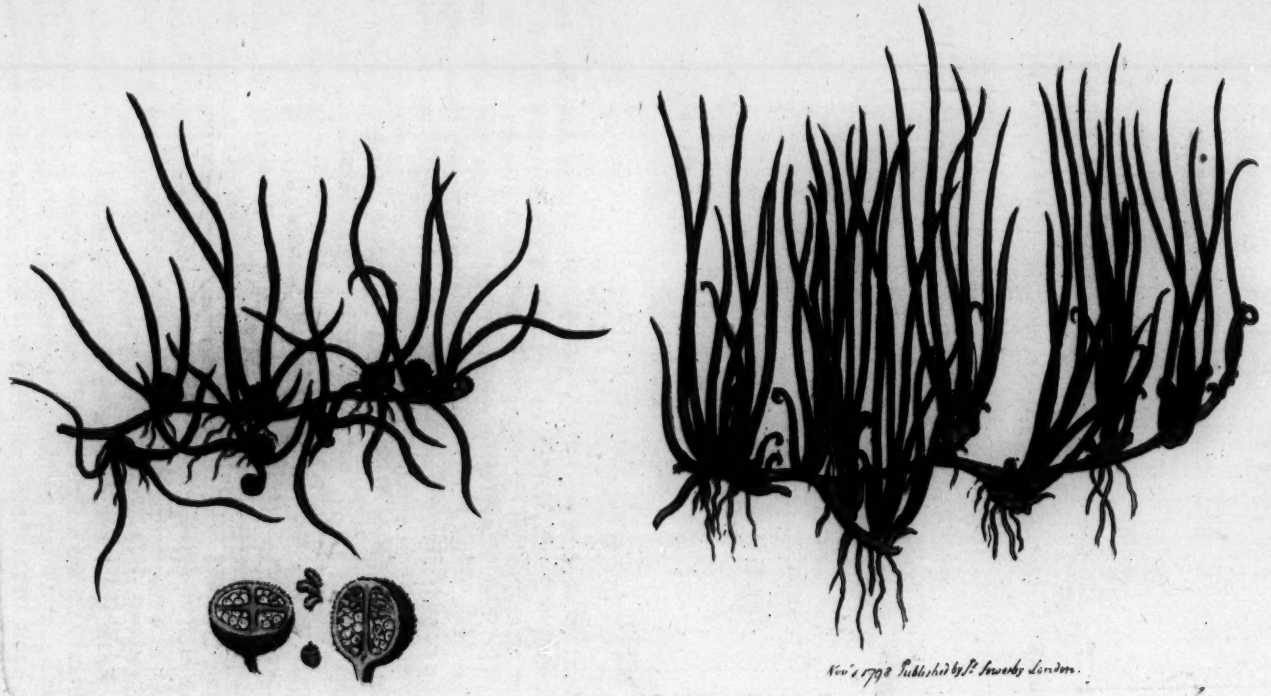
Gramen ſparteum ſpicatum, foliis mucronatis longioribus, vel ſpicâ ſecalinâ. *Raii Syn.* 393.

FREQUENT on the ſea-ſhores in looſe blowing ſand, to which it ſeems intended by Nature to give ſtability, and thus to raiſe a bulwark againſt the encroachments of the waves. On this account its growth is much encouraged on the coaſts of Norfolk, where it is confounded with *Elymus arenarius*, and even *Carex arenaria*, under the name of *Marram*, and acts of parliament have been made for its preſervation. It flowers in July.

Root perennial, creeping to a great extent, jointed. Stem nearly erect, three feet high, hard, round, ſmooth, jointed, leafy. Leaves a little ſpreading, rigid, ſharp-pointed, glaucous, ſmooth, their edges rolled in; furrowed above; very ſmooth beneath, as well as their ſheaths. Stipula long and lanceolate, pointed, torn. Panicle erect, reſembling a ſpike, as the branches are ſhort and cloſe-preſſed. Flowers greeniſh-white, erect. Calyx-glumes a little unequal, lanceolate, compreſſed, keeled, ſlightly three-nerved, their keels rough. Floret ſolitary, with ſhort hairs at the baſe, its glumes like the calyx, but ſhorter. Antheræ purple. Germen inveſted with a bivalve membranous nectary, as in moſt graſſes. Stigmas long and feathery.

Gmelin's genus of *Calamagroſtis*, divided from *Arundo* merely becauſe the calyx is ſingle-flowered, ſeems to us unnatural, and the name is totally inadmiſſible, being compounded of two already in uſe, *Calamus* and *Agroſtis*.

G.R. III



Nov.r 1798 Published by J.t Sowerby London.

PILULARIA globulifera.

Pill-wort, or Pepper-graſs.

CRYPTOGAMIA Miſcellaneæ.

GEN. CHAR. *Common Receptacle* globoſe, with four cells and four valves, lined with numerous *antheræ*, and many globoſe *germens* beneath them.

SPEC. CHAR. - - - -

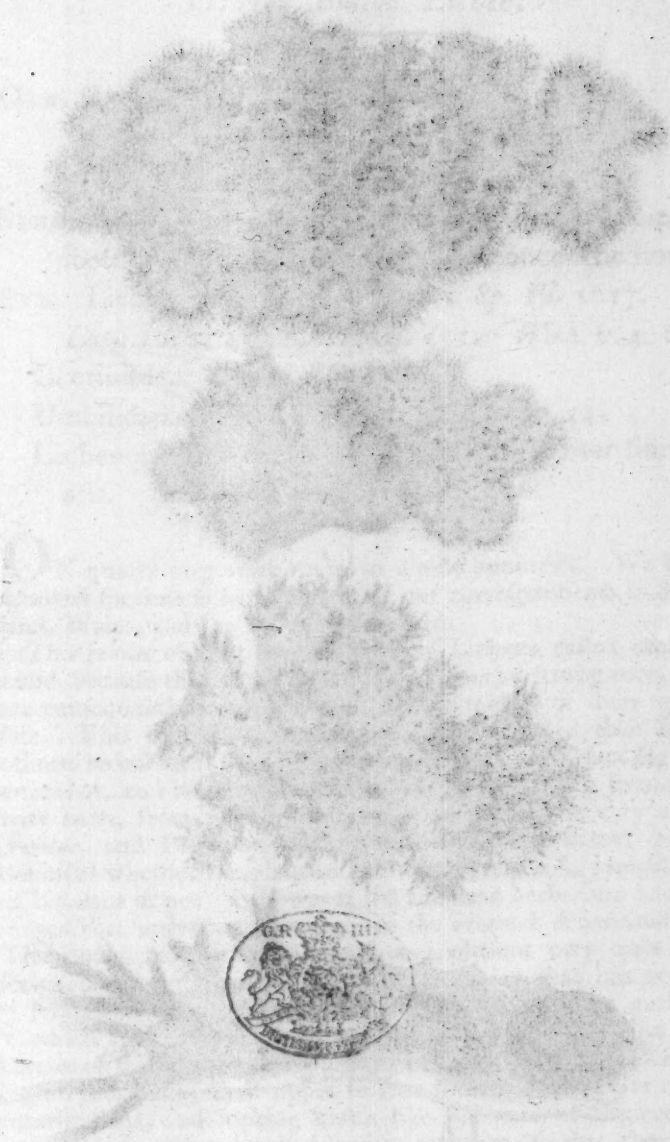
SYN. Pilularia globulifera. *Linn. Sp. Pl.* 1563. *Hudſ.* 462. *With.* 760.

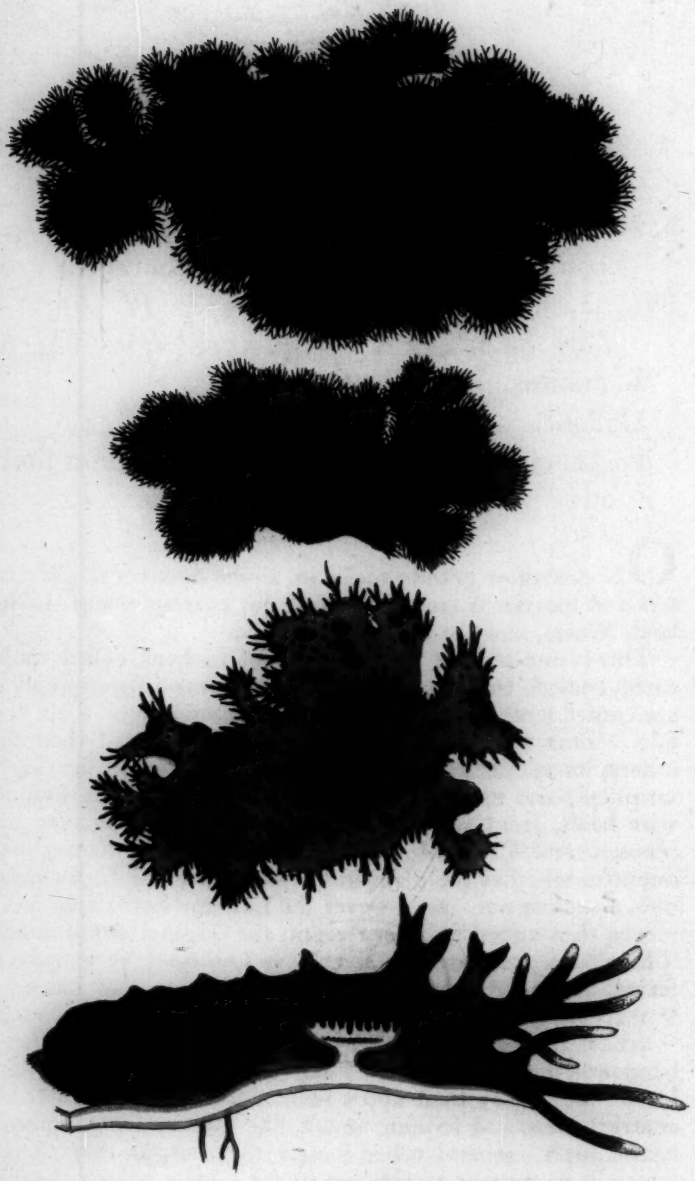
Graminifolia paluſtris repens, vaſculis granorum piperis æmulis. *Raii Syn.* 136.

SENT from near Yarmouth by Mr. D. Turner. It grows in watery places on gravelly or ſandy heaths, as at St. Faith's Newton near Norwich, as alſo on Hillingdon common and Hounſlow heath, though by no means a general plant, for it is not mentioned in the Cambridge or Oxford Floras.

The ſtem is perfectly proſtrate and trailing, throwing out numerous roots (ſuppoſed to be perennial) by which it creeps to a conſiderable extent. Leaves ſimple, upright, awl-ſhaped, narrow and ſmooth. Fructification reſembling pepper-corns, but downy, ſeſſile, ſolitary, axillary, produced from May to the end of Autumn. What at firſt ſight ſeems a capſule, is, in fact, a hollow receptacle, as in the fig, which ſeparates into four valves, and is internally divided into as many cells. The valves are lined with organs of fructification, ſeveral ſeſſile club-ſhaped *antheræ* being in the upper part, and about as many oblong germens occupying the lower. Juſſieu ſays the *antheræ* are moſt numerous. He alſo remarks that the ſeeds are coated. Mr. Sowerby found the germens ſhaped like an acorn reverſed, and terminating in a ſmall acute ſtyle.

From the above deſcription it appears that the *Pilularia* has almoſt as good a right to a place among the perfect flowers as the fig, and might perhaps be ranged in the *Monœcia Polyandria*. In habit and ſenſible qualities it has moſt affinity with the *Equiſetum*, *Lycopodium*, and other plants of obſcure fructification, which are akin to the proper Ferns.





Nov.r 1798 Published by J.t Harris Lower

LICHEN proboſcideus.

Fringed Button Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Umbilicated, lobed, fringed. Tubercles on footſtalks, their diſk marked with concentric lines.

SYN. Lichen proboſcideus. *Linn. Sp. Pl.* 1617. *Fl. Lapp. ed.* 2. 453 *. *Hudſ.* 551. *With. v.* 4. 65.

L. crinitus. *Lightf.* 860.

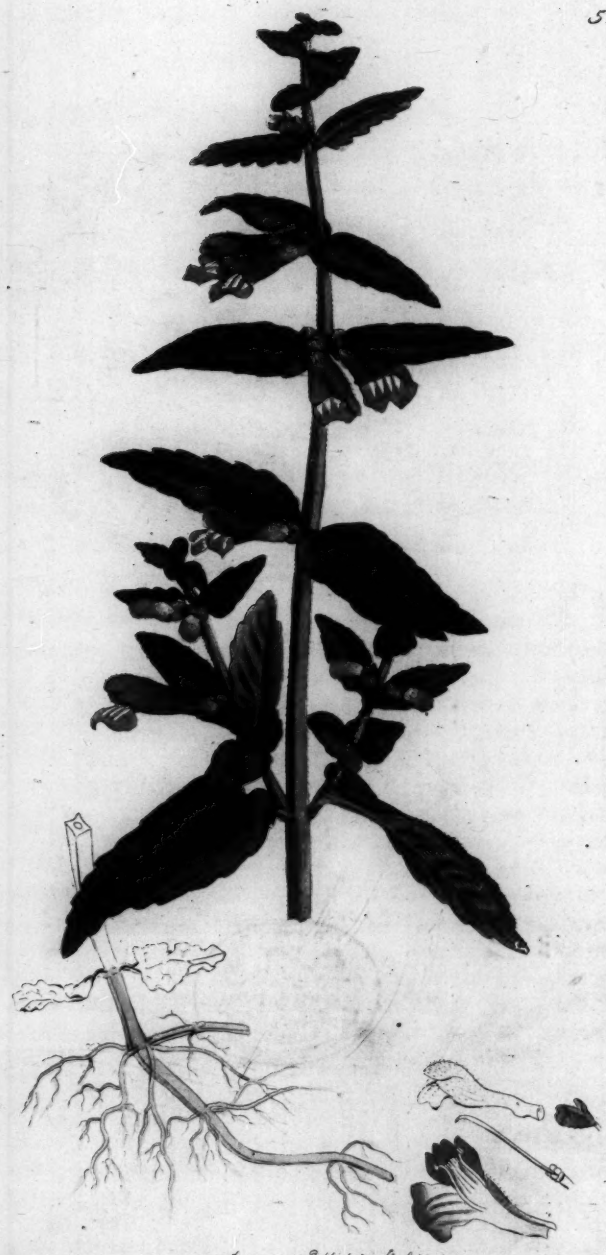
Umbilicaria crinita. *Hoffm. Pl. Lich. t.* 44.

Lichenoides corneum, marginibus eleganter fimbriatis. *Dill. Muſc.* 218. *t.* 29. *f.* 116.

ON quartz or granite rocks in alpine countries. We have received ſpecimens from ſeveral of our correſpondents in Scotland, Wales, and the north of England.

This is one of that ſingular tribe of Lichens called umbilicated, becauſe they grow attached by a central ſtrong root, and are conſequently much depreſſed in the middle of their upper ſide. This ſpecies is more lobed and expanded than ſome others; its colour is a greeniſh grey when wet, its ſurface ſlightly wrinkled, and its margin thickly fringed with black branched wiry hairs, from whence Mr. Lightfoot named it very aptly *crinitus*, and Profeſſor Hoffmann adopted his name, being doubtful whether the plant in queſtion were the L. *proboſcideus* of Linnæus or not: as however the Linnæan herbarium has removed that uncertainty, we retain the original denomination. The doubt aroſe from Linnæus, as Lightfoot very truly obſerves, having "quoted a figure of Dillenius that has no reſemblance to it, and neglected others of the ſame author, "which are very good, and exactly tally with it." The tubercles of this *Lichen* are copiouſly produced, quite black, ſtanding on footſtalks; their upper ſurface formed of irregular concentric lines, and looking much like one end of a piece of coarſe black ribband rolled looſely together, ſo that there is generally a cavity or perforation in the middle among the folds. Smaller ſeſſile tubercles are ſcattered over the frond, which have a ſort of margin, and appear to be in a young ſtate. The real L. *deuſtus* of Linnæus differs from this in being more ſimple, and entirely deſtitute of marginal fringe.

G.R.
III.



Dec.1.1790. Published as the Act directs by S. Sowerby

SCUTELLARIA galericulata.

Common Skull-cap.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* rim nearly entire, cloſed and covered with a lid after flowering.

SPEC. CHAR. Leaves heart-lanceolate, crenate, rugged. Flowers axillary.

SYN. Scutellaria galericulata. *Linn. Sp. Pl.* 835. *Hudſ.* 265. *With.* 540. *Relh.* 236. *Sibth.* 190. *Curt. Lond. faſc.* 3. *t.* 36.

Caſſida paluſtris vulgatior, flore cæruleo. *Raii Syn.* 244.

COMMON about ditches and reedy rivulets, flowering in July and Auguſt.

The root is perennial and creeping. Stem erect, generally branched about the middle, thickly clothed with leaves to the top, ſquare, roughiſh. Leaves oppoſite, ſpreading, on ſhort foot-ſtalks, lanceolate, heart-ſhaped at the baſe, regularly and equally crenate to very near the point, rugged, veiny, clothed with very ſhort hairs, paler beneath. Stipulæ none. Flowers axillary, ſolitary, almoſt ſeſſile, a little drooping. Calyx hairy, ſlightly notched, furniſhed on the upper ſide with a ſmall concave ſcale, which, after the corolla falls, is enlarged and overtops the already cloſed orifice. Corolla tubular, ringent, but not gaping, hairy, blue, the palate ſtreaked with white, the tube pale and purpliſh. Stamina and ſtyle white. Stigma ſimple. The two oppoſite flowers generally droop together on the ſame ſide of the ſtalk.

This genus is eaſily diſtinguiſhed by the ſingular ſtructure of its calyx, which in its advanced ſtate has been compared to a helmet, and ſerves as a capſule for the ſeeds, which are naturally four, though ſeldom all perfected, the plant being principally increaſed by its root.

G.R III.
BRITISH MUSEUM

SCUTELLARIA minor.

Leſſer Skull-cap.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cal.* rim nearly entire, cloſed and covered with a lid after flowering.

SPEC. CHAR. Leaves heart-ovate, nearly entire. Flowers axillary.

SYN. Scutellaria minor. *Linn. Sp. Pl.* 835. *Hudſ.* 265. *With.* 540. *Curt. Lond. faſc.* 4. *t.* 43. *Dickſ. H. Sicc. faſc.* 5, 6.

Caſſida paluſtris minima, flore purpuraſcente. *Raii Syn.* 244.

A MUCH rarer plant than the laſt. It is however found on ſeveral moiſt heaths near London, as well as in Norfolk, and the more mountainous counties, flowering about Auguſt.

Root creeping, perennial. Whole habit much reſembling the S. *galericulata*, but it is in every part a ſmaller plant; the ſtem is branched more from the bottom, the leaves broader in proportion to their length, and not rugged; they are for the moſt part perfectly entire, though ſometimes found with a deep notch or two at their baſe, ſo as to become ſomewhat haſtate. This variety was firſt pointed out to us on Barnes Common by G. Hibbert, Eſq. F.L.S. Mr. Curtis has figured the entire leaves only. The flowers are not half ſo large as in the *galericulata*, and of a delicate pink colour, rarely blueiſh; their lip white ſpotted with red.

This haſtate variety confirms the accuracy of Linnæus's remark concerning the great affinity between this ſpecies, the *galericulata*, and the *haſtifolia*. The latter indeed cannot be confounded with this, having real haſtate leaves, and being as large in all its parts as the *galericulata*, from which it is known at firſt ſight by the leaves not being crenate.

Dec.ʳ 1.1792 Published by J. Sowerby

SISYMBRIUM tenuifolium.

Wall Rocket.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* cylindrical, burſting with nearly ſtraight valves. *Cal.* and *Cor.* ſpreading.

SPEC. CHAR. Leaves ſmooth, nearly entire; the lowermoſt once or twice pinnatifid; the uppermoſt undivided.

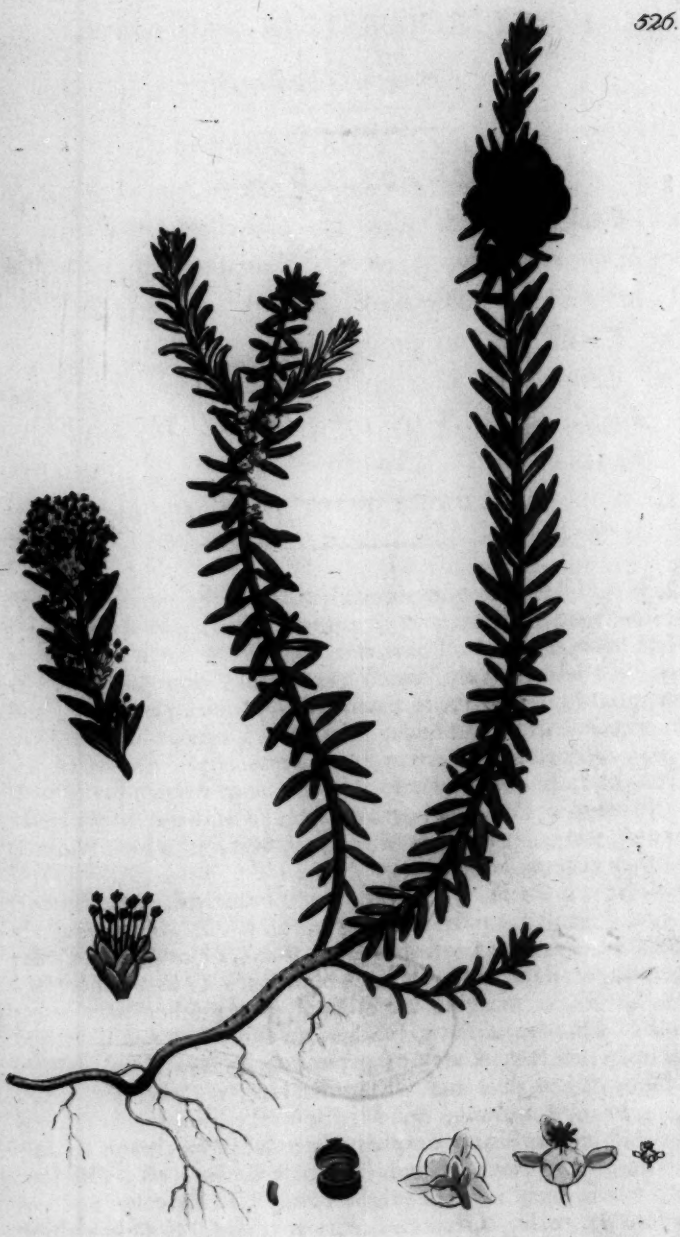
SYN. Siſymbrium tenuifolium. *Linn. Sp. Pl.* 917.
Braſſica muralis. *Hudſ.* 290. *With.* 592. *Curt. Lond. faſc.* 3. *t.* 38.
Eruca ſylveſtris. *Raii Syn.* 296.

THIS plant has been known to Engliſh botaniſts by many different names, yet no one has hit on the right ſynonym of Linnæus. Mr. Hudſon at firſt took it for his *Braſſica Erucaſtrum*, miſled perhaps by the quotation of Fuchſius, p. 262, which probably belongs to our plant; but having found his error, yet ſtill thinking it a *Braſſica*, in his 2d edition he called it B. *muralis*, falling into a freſh miſtake in quoting the *Siſymbrium murale* of Linnæus as a ſynonym, which is very different, as may be ſeen in Dickſon's Dried Plants, No. 12, and *Barrel. Ic. t.* 131. Linnæus adopted his S. *tenuifolium* from Dalibard, without ſeeing a ſpecimen, nor is it, as ſuch, in his herbarium; I was therefore obliged to learn in France what he intended: yet as the ſynonyms he quotes are all right, it might have been determined by them, with the help of his ſpecific character, which, though not faultleſs, can hardly be miſtaken. We follow Linnæus in this inſtance, as the ſpreading calyx makes it a *Siſymbrium*, not a *Braſſica*, ſo that there is no occaſion to recur to the uncertain mark of the nectariferous glands. The name *tenuifolium*, taken from J. Bauhin, is certainly exceptionable, ſome of the genus having much more finely cut leaves.

This *Siſymbrium* grows on the walls of many old towns, and is perennial, flowering all the ſummer. The ſtem is round, branched, leafy, ſmooth, with a few ſcattered hairs. Leaves alternate, glaucous, rather fleſhy, for the moſt part ſimply pinnatifid, but ſome of them are frequently bipinnatifid; the uppermoſt generally, not always, ſimple. The margins of all are entire, ſometimes ſlightly notched. The elegant ſtraw-coloured flowers ſmell unpleaſantly, and every part is pungen to the taſte.

Linnæus latterly confounded this with his S. *catholicum*, which has ſharply-ſerrated leaves, and is a ſmaller more delicate plant.

G.R. III.



EMPETRUM nigrum.

Black Crow or Crake-Berry.

DIOECIA Triandria.

GEN. CHAR. Male, *Cal.* in 3 diviſions. *Petals* 3. *Stam.* capillary, 3 to 9. Female, *Cal.* and *Pet.* as in male. *Stigmas* 9. *Berry* with 9 ſeeds.

SPEC. CHAR. Plant procumbent.

SYN. Empetrum nigrum. *Linn. Sp. Pl.* 1450. *Hudſ.* 431. *With.* 176. *Dickſ. H. Sicc. faſc.* 2. 10.

E. montanum, fructu nigro. *Raii Syn.* 444.

A NATIVE of mountainous heaths in the northern counties, flowering in May, and ripening its berries in Auguſt. It clothes many a thouſand barren acres, either on a mooriſh or ſtony ſoil; and its fruit, which has a mild flavour of the elderberry, affords ſuſtenance to ptarmigans, grouſe, partridges, and even to the hardy highlander himſelf. Linnæus in his *Flora Lapponica* informs us that too great a quantity of this fruit occaſions the head-ach, and alſo that the plant bears equally well the extremeſt cold of the north of Sweden and the ſulphureous ſmoke of the copper mines of that country, in which ſcarcely any other vegetable will grow.

The ſtem is ſhrubby, reddiſh, much branched, procumbent, the young branches only ſtanding upright. Leaves irregularly imbricated, ſpreading, on ſhort foot-ſtalks, oblong, blunt, flat on the upper ſide, their margins bent back ſo as to meet beneath, and theſe margins are ciliated, every other part being ſmooth. Flowers axillary, ſolitary, on ſhort ſtalks, with a few ſmall ſcaly bracteæ. Calyx of 3 roundiſh leaves. Petals moſtly 3, oblong, of a dull red. Stamina long and ſlender, 3 according to moſt authors, but Mr. Sowerby found 9, accompanied by an extraordinary number of petals, in ſpecimens ſent by Mr. Templeton from Ireland. Female flowers on a different plant, whoſe ſtem is of a brighter red. Their calyx and corolla like the male. Germen ſuperior, round. Style we think ſimple, with 9 ſtellate ſtigmas. Berry with 9 ſeeds, cloſely arranged in a globular form. Linnæus mentions having found a few hermaphrodite plants, which made him at firſt place this genus in the *Polygamia* claſs.

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Pubd. 1790 by J. Sowerby, London.

LYSIMACHIA nemorum.

Yellow Pimpernel, or Wood Looſeſtrife.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped. *Capſ.* globoſe, pointed, with 10 valves.

SPEC. CHAR. Leaves ovate, acute. Flowers ſolitary. Stem procumbent. Stamina ſmooth.

SYN. Lyſimachia nemorum. *Linn. Sp. Pl.* 211. *Hudſ.* 86. *With.* 237. *Relh. Suppl.* 3. 1. *Sibth.* 74. *Curt. Lond. faſc.* 5. *t.* 18.
Anagallis lutea. *Raii Syn.* 282.

THE pretty yellow Pimpernel of the Woods is a great ornament to moiſt ſhady groves, flowering from the end of May till September, though in the greateſt perfection and brilliancy about Midſummer. As the ſeaſon advances, its long trailing branches hang elegantly over broken ground or moſſy rocks, among little trickling rills, while its neat ſhining myrtle-like leaves are intermixed and entangled with tufted *Hypnums* or the ſmaller kinds of fern.

The roots are perennial. Stems procumbent or pendent, taking root from ſome of the lower joints, branched, ſquare, red and pellucid, leafy. Leaves oppoſite, on footſtalks, ovate, entire, veiny, rather ſucculent. Every part of the herb is ſmooth. Flowers on long, ſlender, ſolitary, axillary, ſimple, often twiſted, ſtalks. Calyx in 5 equal awl-ſhaped ſegments. Corolla ſpreading, divided about half way to the baſe, or farther, into 5 lobes. Filaments ſmooth, ſhorter than the corolla. Style a little club-ſhaped, with a ſimple blunt ſtigma. Capſule ſuperior, globoſe, of 1 cell, burſting into 10 valves, which often ſtick together in pairs or irregularly in this as in other ſpecies. Seeds ſeveral, roundiſh.

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LYSIMACHIA Nummularia.

Moneywort, or Creeping Looſeſtrife.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped. *Capſ.* globoſe, pointed, with 10 valves.

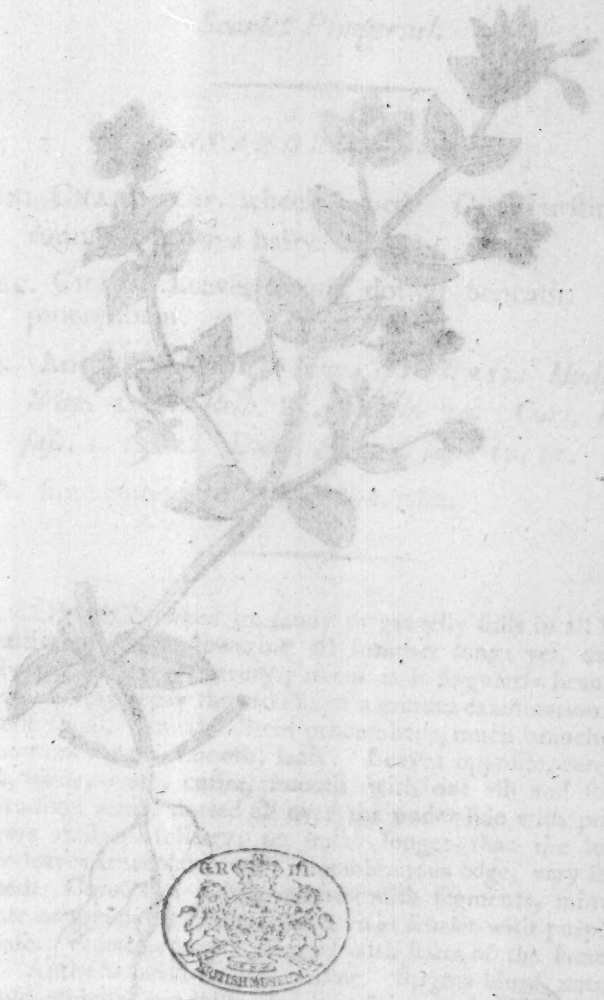
SPEC. CHAR. Leaves ſomewhat heart-ſhaped. Flowers ſolitary. Stem creeping. Stamina glandular.

SYN. Lyſimachia Nummularia. *Linn. Sp. Pl.* 211. *Hudſ.* 87. *With.* 238. *Relh.* 84. *Sibth.* 74. *Curt. Lond. faſc.* 3. *t.* 14. *Dickſ. H. Sicc. faſc.* 12. 10.

Nummularia. *Raii Syn.* 283.

MONEYWORT, or Herb Twopence as it was formerly called, inhabits ſimilar places with the preceding ſpecies, or rather the banks of wet ditches, creeping over the black boggy ſoil of very moiſt meadows, or on the margins of ſhady rivulets, flowering copiouſly in June and July. Root perennial. Stems ſeveral, perfectly proſtrate and creeping, quadrangular but compreſſed, moſtly ſimple. Leaves much rounder, paler, and more undulated than in the laſt. Segments of the calyx ovate, pointed. Corolla pale lemon-coloured, divided almoſt to the baſe; when magnified it is found to be clothed with ſmall glands ſtanding on footſtalks, as are alſo the ſtamina. The antheræ are arrow-ſhaped. The ſtigma blunt, notched. The capſule is ſeldom perfected, nor are we able to figure it any more than Mr. Curtis.

The qualities of theſe two ſpecies of *Lyſimachia*, either in medicine or for agricultural purpoſes, are, we believe, altogether unimportant. Their taſte is herbaceous, with a little unpleaſant pungency or aſtringency.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Dec.r 1798 Published by J.t Sowerby London.

ANAGALLIS arvenſis.

Scarlet Pimpernel.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped. *Capſ.* burſting all round. *Stamina* hairy.

SPEC. CHAR. Leaves ovate, dotted beneath. Stem procumbent.

SYN. Anagallis arvenſis. *Linn. Sp. Pl.* 211. *Hudſ.* 87. *With.* 238. *Relh.* 85. *Sibth.* 74. *Curt. Lond. faſc.* 1. *t.* 12. *Dickſ. H. Sicc. faſc.* 12. 11.

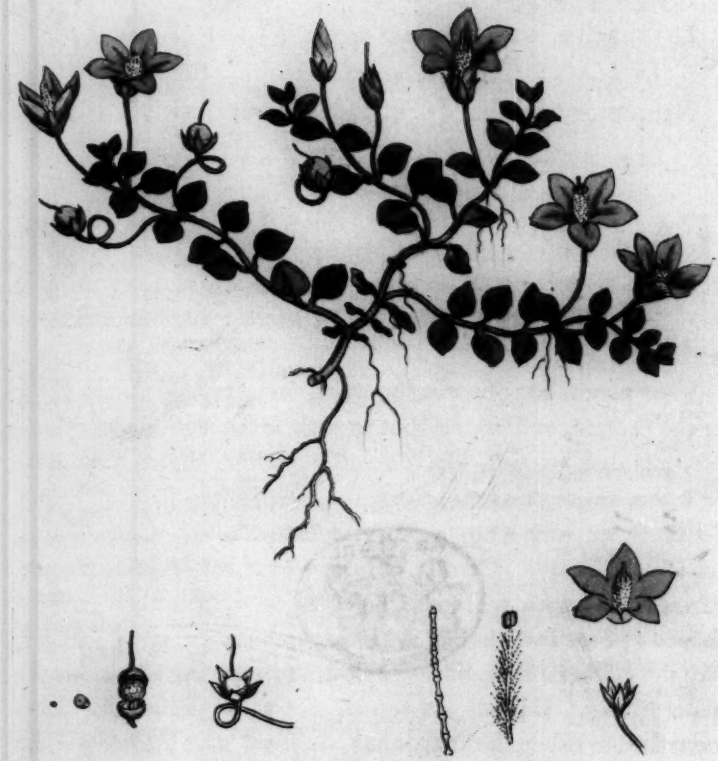
A. flore phœniceo. *Raii Syn.* 282.

A COMMON weed on ſandy or gravelly ſoils in all kinds of cultivated land, flowering all ſummer long; yet, as Dr. Withering obſerves, "every part of it is ſingularly beautiful, and will amply repay the trouble of a minute examination."

Root ſmall, annual. Stem procumbent, much branched at the bottom, ſquare, ſmooth, leafy. Leaves oppoſite, rarely in fours, ſeſſile, ovate, entire, ſmooth, with one rib and ſeveral longitudinal veins, dotted all over the under ſide with purple. Flowers axillary, ſolitary, on ſtalks longer than the leaves. Calyx-leaves lanceolate, with a membranous edge, very ſharp-pointed. Corolla in 5 deep-cut roundiſh ſegments, minutely crenate or ſomewhat fringed, of a vivid ſcarlet with purple at the baſe. Stamina purple, fringed with hairs of the ſame colour. Antheræ heart-ſhaped, yellow. Stigma blunt, notched. Capſule globoſe, greeniſh, ſemitranſparent, burſting in two equal hemiſpheres. Seeds many, angular, thickly crowded into a globe.

The blue Pimpernel is ſuppoſed to be a permanent variety of this. We have as yet found no ſpecific difference. Ray mentions a white one.

This pretty flower opens only in fine weather, and infallibly cloſes againſt rain; hence it is called the poor man's weather-glaſs, and it is one of the moſt certain that can be conſulted, as we have often experienced.



Nov.1 1790 Published by J. Sowerby London

ANAGALLIS tenella.

Bog Pimpernel.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped. *Capſ.* burſting all round. *Stamina* hairy.

SPEC. CHAR. Leaves roundiſh, ſomewhat pointed, on foot-ſtalks. Stem creeping. Stigma acute.

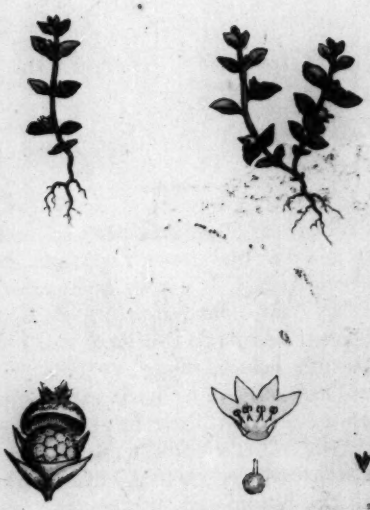
SYN. Anagallis tenella. *Linn. Syſt. Veg. ed.* 14. 196. *With.* 239. *Relh.* 86. *Sibth.* 75. *Curt. Lond. faſc.* 3. *t.* 15.

Lyſimachia tenella. *Linn. Sp. Pl.* 211. *Hudſ.* 87. *Dickſ. H. Sicc. faſc.* 2. 12.

Nummularia minor, flore purpuraſcente. *Raii Syn.* 283.

THIS moſt elegant little plant was ſent us from Staffordſhire by the Rev. T. Giſborne. It is not unfrequent on wet bogs throughout theſe kingdoms, flowering in July and Auguſt.

Root perennial. Stems ſpreading in every direction cloſe to the ground, and taking root as they advance; they are ſlender, angular, ſmooth, clothed with oppoſite, ſmall, roundiſh, or ovate, entire, ſmooth leaves, on ſhortiſh foot-ſtalks. Flowers erect, on very long, axillary, ſolitary ſtalks. Calyx-leaves lanceolate, acute. Corolla of an elegant roſe-colour, deeply divided, but with a tubular baſe, ſo as to be rather funnel-ſhaped. Stamina clothed with numerous, curiouſly jointed, hairs. Antheræ roundiſh. Style long, tapering into a ſimple acute ſtigma. Capſule cut round, not often perfected. Linnæus had not ſeen the fruit when, in his *Species Plantarum*, he reduced this plant to the genus *Lyſimachia*, with which it agrees indeed in habit, but the ſtamina, capſule and ſeeds are thoſe of an *Anagallis*. It bears a very conſiderable affinity to the *Centunculus*, but the ſtamina of that are ſmooth.



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CENTUNCULUS minimus.

Chaff-weed or *Baſtard Pimpernel.*

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* 4-cleft. *Cor.* 4-cleft, inferior, tubular; limb ſpreading. *Stam.* ſhort, ſmooth. *Capſ.* of 1 cell, burſting all round, with many ſeeds.

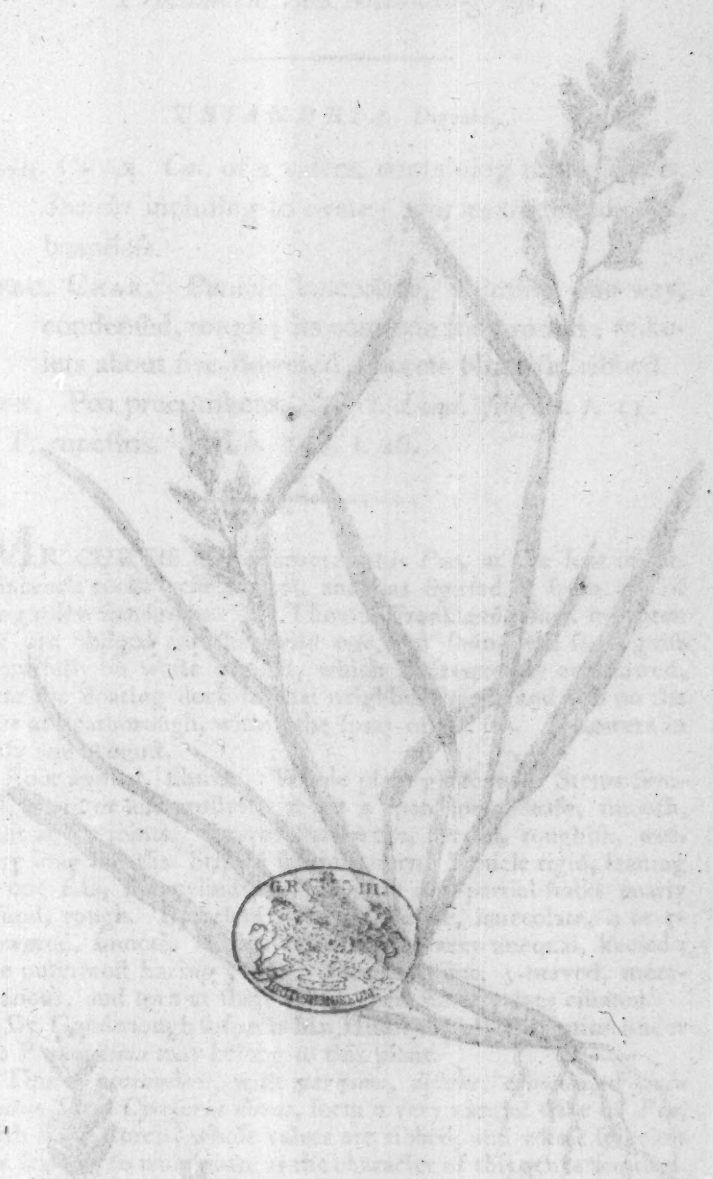
SPEC. CHAR. .....

SYN. Centunculus minimus. *Linn. Sp. Pl.* 169. *Hudſ.* 63. *With.* 198. *Curt. Lond. faſc.* 3. *t.* 11. *Dickſ. H. Sicc. faſc.* 7. 2.
Centunculus. *Dill. in Raii Syn.* 1.

ONE of the leaſt of our "perfect plants," as they are called, which, perhaps, is reckoned more rare than it really is, from being ſo eaſily overlooked. It grows on watery, ſandy heaths, and has been ſent us from near Ampthill, Bedfordſhire. It has been found on ſeveral heaths to the weſt and ſouth of London, flowering in June and July.

Root ſmall, and annual. The herb varies much in ſize, like all annuals. Stem generally a little branched at the baſe, erect, an inch or two high, a little angular, leafy, ſmooth. Leaves alternate, ſeſſile, ſpreading, ovate, entire, ſmooth. Flowers ſolitary, ſeſſile in the boſoms of the leaves, white or reddiſh, expanded only in the moſt brilliant ſunſhine, and very ſhort-lived. Segments of the calyx lanceolate, acute. Corolla permanent, tubular at the baſe, its limb in 4 acute ſpreading ſegments. Stamina awl-ſhaped, ſmooth, very ſhort, inſerted into the tube. Capſule globoſe, crowned with the permanent ſtyle.

There is certainly great affinity between this plant and the *Anagallis*; M. de Juſſieu has even ſaid that it has ſometimes 5-cleft flowers, with 5 ſtamina, and ſo becomes an *Anagallis*. We think, however, the ſmooth ſtamina, as well as the tubular form of the corolla, independent of number, juſtify Dillenius in making it diſtinct. It has the habit and flower nearly of *Lyſimachia Linum-ſtellatum*, with the fruit of *Anagallis*. The corolla is permanent, though it ſoon withers, being forced off only by the ſwelling ſeed-veſſel.



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POA procumbens.

Procumbent Sea Meadow-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* inclining to ovate; glumes ovate, pointed, beardleſs.

SPEC. CHAR. Panicle lanceolate, pointing one way, condenſed, rough; its common ſtalk round; ſpikelets about five-flowered; florets bluntiſh, ribbed.

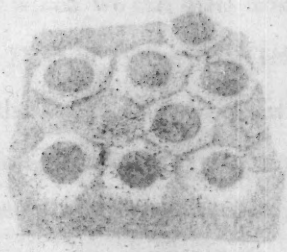
SYN. Poa procumbens. *Curt. Lond. faſc.* 6. *t.* 11.
P. rupeſtris. *With.* 146. *t.* 26.

MR. CURTIS firſt diſcovered this *Poa*, at the foot of St. Vincent's rocks near Briſtol, and has figured it from one of his garden ſpecimens. Sir Thomas Frankland, Bart. to whom we are obliged for this wild one, has found the ſame graſs plentifully on waſte ground, which is frequently overflowed, near the floating dock in that neighbourhood, and alſo on the pier at Scarborough, within the ſpray of the ſea. It flowers in July and Auguſt.

Root annual, fibrous. Whole plant glaucous. Stems ſeveral, more or leſs proſtrate, about a ſpan long, leafy, ſmooth, bent at the joints. Leaves flat, acute, nerved, roughiſh, with very long ſheaths. Stipula ſharpiſh, torn. Panicle rigid, leaning to one ſide, ſemicylindrical, its main and partial ſtalks nearly round, rough. Spikelets 2-ranked, ſeſſile, lanceolate, 4 or 5-flowered, ſmooth. Calyx-valves blunt, very unequal, keeled; the outermoſt having 5 ribs. Florets blunt, 5-nerved, membranous, and torn at their apex; their inner valves ciliated.

Dr. Goodenough ſuſpects Mr. Hudſon's full deſcription under his P. *maritima* may belong to this plant.

This P. *procumbens*, with *maritima*, *diſtans*, *aquatica*, *Feſtuca fluitans*, and *Cynoſurus durus*, form a very natural tribe of *Poæ*, with blunt florets, whoſe valves are ribbed, and whoſe ſpikelets are ſcarcely ſo truly ovate as the character of this genus requires. They are joined to the other ſpecies by means of P. *rigida*, and *compreſſa*, and, no doubt, form a natural genus with them.



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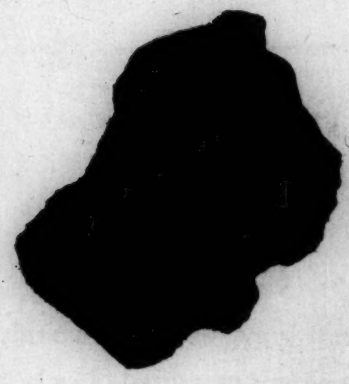

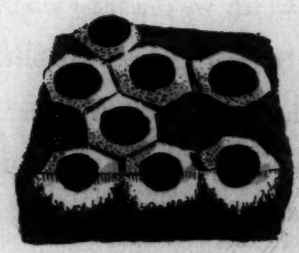

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LICHEN teſſellatus.

Moſaic Lichen.

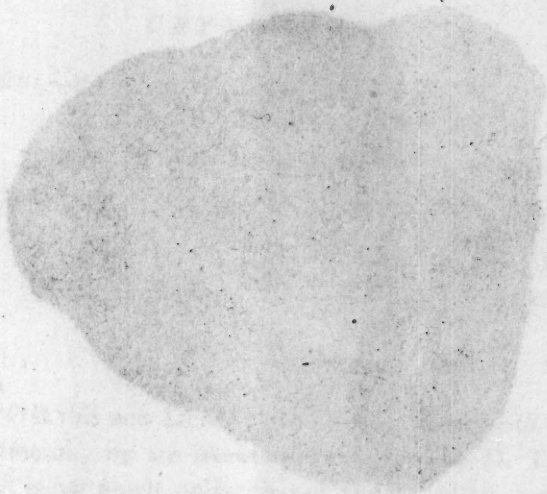
CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which ſeeds are imbedded.

SPEC. CHAR. Cruſt gray, cracked, whitiſh about the tubercles, which are immerſed, black, prominent, ſmooth.

THIS Lichen, for which we can meet with no ſynonyms, was diſcovered by Mr. Dawſon Turner upon brick walls about Yarmouth. It covers the ſurface of the bricks with a gray cruſt, ſcarcely mealy, but full of minute angular uneven cracks. The tubercles are numerous, very prominent, pointed, and ſmooth, particularly black in the centre, deſtitute of any margin, immerſed in the cruſt, and each always occupying a conſiderable angular portion of it, which is whiter, both within and without, than the reſt of the cruſt. Sometimes theſe portions crowd one another into tolerably regular hexagons. When the older tubercles are cut acroſs or rubbed down to the brick, it is found that the cruſt has been elevated along with their central part, as in L. *ſanguinarius, tab.* 155.



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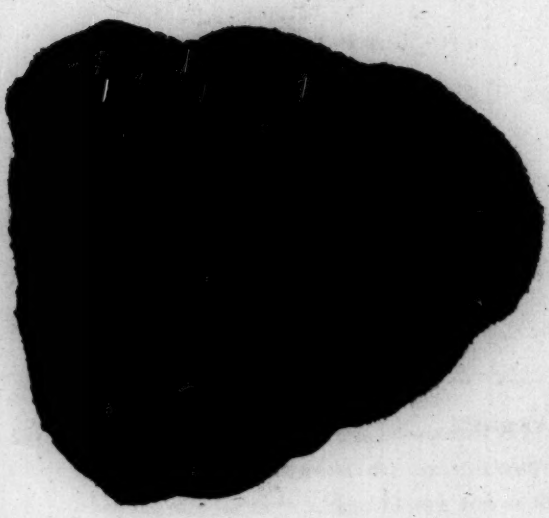
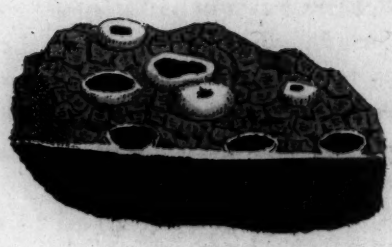




Dec.r 1798 Published by J.s Sowerby London

LICHEN coarctatus.

Contracted Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

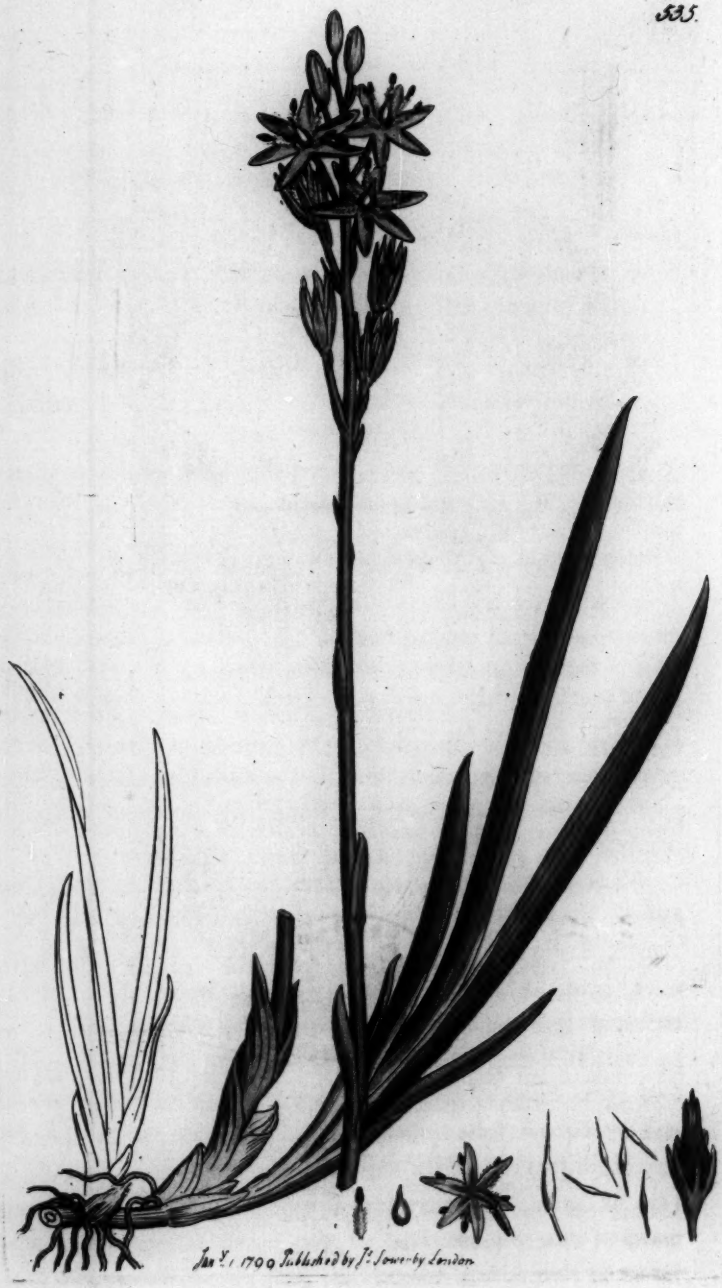
Female, ſmooth ſhields or tubercles in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt gray, cracked. Shields black, flat, with an elevated, white, mealy margin, when young drawn cloſe over the centre.

FOR this new Lichen, found frequently on brick walls about Yarmouth, we are likewiſe obliged to Mr. D. Turner. Its cruſt is not much unlike that of the preceding, but more obſolete, and not ſo white. The ſhields are ſmall, very flat, not at all immerſed, of a blueiſh unpoliſhed black. Their margin is conſiderably elevated, white, very mealy or downy. When young it is cloſely drawn or purſed up ſo as to cover the black part, in which ſtate the fructification has the form of minute white downy ſpecks.

What purpoſes theſe apparently inconſiderable productions anſwer in the all-wiſe œconomy of the creation we cannot always determine; but we know enough to be certain that each ſpecies is propagated and preſerved by the ſame laws as the moſt ſplendid offspring of a tropical climate, and we may be as certain that nothing is made in vain. Minute caterpillars feed upon ſome of theſe Lichens, as the *Phalæna Lichenella*, and probably more inconſpicuous ones which have not yet been inveſtigated. We know of one end which they all anſwer in decay, the formation of vegetable mould, which being waſhed into the crevices of the ſtones it is formed upon, ſerves to receive and nouriſh the ſeeds of other vegetables.

G.R.
III.



Jan.y 1. 1790 Published by J.s Sowerby London.

NARTHECIUM offifragum.

Lancaſhire Aſphodel.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* none. *Petals* 6, ſpreading, permanent. *Stamina* thread-ſhaped, hairy. *Capſule* ſuperior, priſmatic. *Seeds* with an appendage at each end.

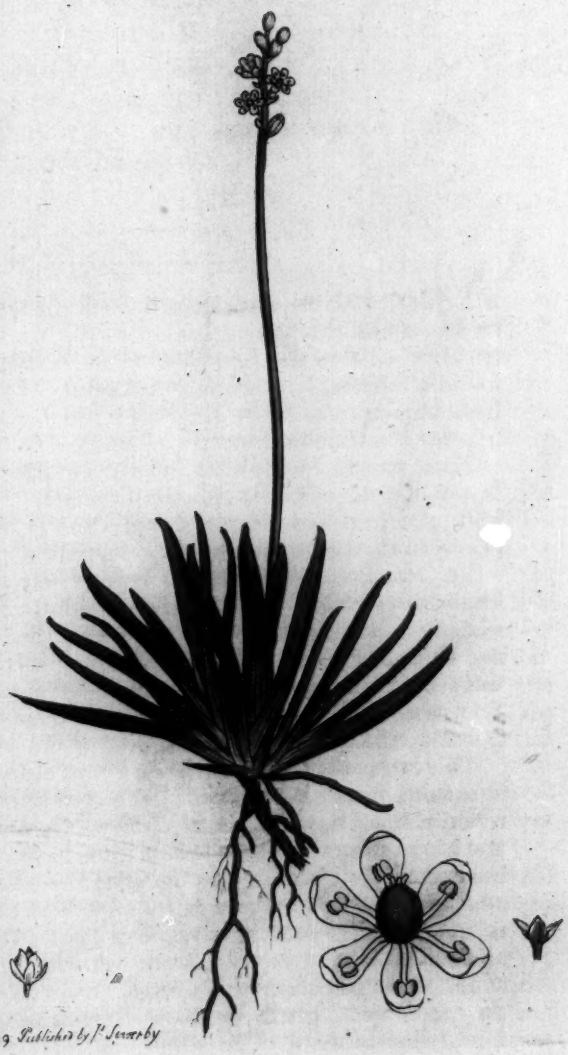
SPEC. CHAR.....

SYN. Narthecium offifragum. *Hudſ.* 145. *With.* 339.
Anthericum offifragum. *Linn. Sp. Pl.* 446. *Fl. Dan. t.* 42. *Dickſ. H. Sicc. faſc.* 1. 5. *Relh.* 138.
Phalangium anglicum paluſtre, Iridis folio. *Raii Syn.* 375.

A NATIVE of black turfy bogs in the north, as well as in Surrey, Kent, and on Derſingham moor Norfolk, where it flowers in July or Auguſt.

Root fibrous, ſomewhat tuberous and creeping as in the genus of Iris. Stem 6 or 8 inches high, curved at the baſe, erect, ſimple, round, ſmooth, clothed with a few alternate, ſhort, pointed, carinated leaves. The radical leaves alſo reſemble thoſe of the Iris, except in being a great deal ſmaller; they are equitant, ſword-ſhaped, pointed, nervous and ſmooth. Spike terminal, erect, of ſeveral yellow flowers, whoſe footſtalks are erect, alternate, ſimple, angular, furniſhed with one bractea at the baſe, and another towards the ſummit. Petals linear-oblong, nervous, yellow, externally greeniſh, permanent. Stamina oppoſite to the petals and a little ſhorter, thread-ſhaped, clothed with thick-ſet yellowiſh hairs. Antheræ yellow, at length twiſted and browniſh. Germen oblong, pointed, triangular. Stigma ſmall, capitate, nearly ſeſſile. Capſule priſmatic, pointed, tawny, poliſhed, rigid, of three valves and three cells, the partitions proceeding from the centre of the valves. Seeds numerous, upright, imbricated, ſomewhat cylindrical, terminating at each end in an awl-ſhaped appendage.

This moſt diſtinct genus was ſeparated from *Anthericum* by Moering in the 6th volume of the Ephemerides Naturæ Curioſorum, who has there given a full botanical hiſtory of the plant. Gorter follows him; and it is very remarkable that Haller by miſtake quotes both under his *Anthericum n.* 1205, which is A. *calyculatum* of Linnæus, our *Toſieldia*. Hence Juſſieu and other French botaniſts have called that by the name of *Narthecium*.



Jan.y 1. 1799 Published by J.t Sowerby

TOFIELDIA paluſtris.

Scottiſh Aſphodel.

HEXANDRIA Trigynia.

GEN. CHAR. *Cal.* 3-cleft. *Pet.* 6. *Styles* vertical, ſhort. *Capſules* 3, ſuperior, united at the baſe. *Seeds* many. *Antheræ* roundiſh.

SPEC. CHAR. Petals obovate, obtuſe.

SYN. Tofieldia paluſtris. *Hudſ.* 157. *With.* 358.
Anthericum calyculatum. *Linn. Sp. Pl.* 447. *Lightf.* 181. *t.* 8. *f.* 2. *Dickſ. H. Sicc. faſc.* 13. 11.
Phalangium ſcoticum paluſtre minimum, Iridis folio. *Raii Syn.* 375.

A MORE alpine plant than the laſt, though it grows in a ſimilar ſoil, and forms green patches in the black boggy margins of trickling rills on the highland moors of Scotland, where it is found abundantly, flowering in Auguſt. It has not till lately been known to grow in England; but our wild ſpecimen was ſent by Mr. Robſon from the county of Durham.

Root woody, with long whitiſh fibres. Leaves equitant, ſword-ſhaped, nervous, almoſt all radical. Stem 4 to 8 inches high, nearly naked, ſimple, round. Spike erect, obtuſe. Flowers greeniſh-white, on very ſhort footſtalks. Bracteæ ſolitary, ovate, concave, ſmall, at the baſe of each footſtalk. Calyx ſmall, three-cleft. Petals obovate, blunt, concave, equal, permanent. Stamina oppoſite to them, but ſcarcely ſo long, awl-ſhaped, ſmooth. Antheræ heart-ſhaped, roundiſh. Germen ſuperior, 3-furrowed. Styles vertical, ſhort, diſtant. Stigmas blunt. Capſules 3, joined at their baſe, gibbous, but ſcarcely inflated. Seeds numerous, elliptical, tawny.

This is a perfectly diſtinct genus from every other *Anthericum* as well as from *Narthecium*. We could much have wiſhed to retain the laſt name for it, as Juſſieu, Gerard, Villars, Allioni, and Lamarck (owing as it ſhould ſeem to the miſtake of Haller) have done; but nothing can ſet aſide the prior right of *Narthecium* as given to the other genus by Moering. Our *Tofieldia* is indeed the original *Anthericum* of Linnæus in *Gen. Pl. ed.* 1. and *Hort. Cliff.*; but ſo many other ſpecies have ſince been added to it, and are now univerſally called *Anthericum*, that, as they are a good genus by themſelves, it would make too great a confuſion to name them afreſh. If *Phalangium* were not the name of an inſect, we ſhould have preferred that to *Tofieldia*.

G.R. III.
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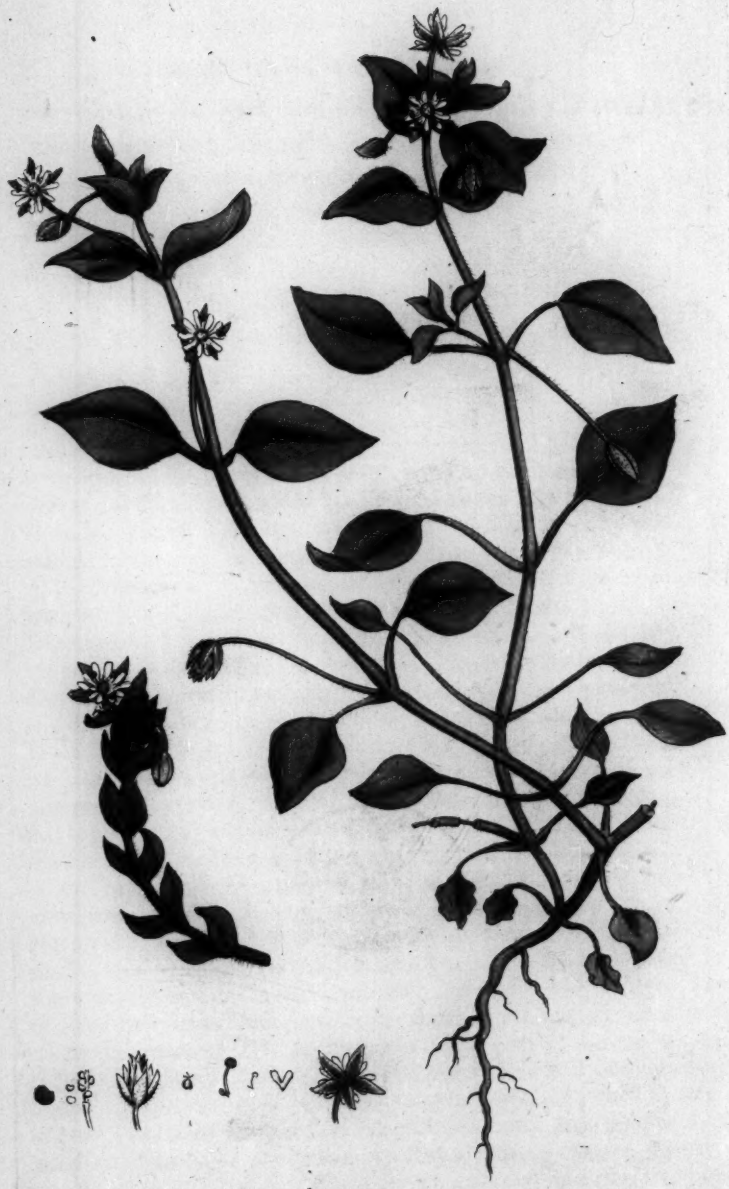

Jan.y 1. 1799 Published by J.s Sowerby London.

STELLARIA media.

Common Chickweed.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, cloven. *Capſ.* 1-celled, with 6 valves, and many *ſeeds.*

SPEC. CHAR. Leaves ovate. Stems procumbent, with a hairy alternate ridge on one ſide. Stamina 5 to 10.

SYN. Stellaria media. *With.* 418.
Alſine media. *Linn. Sp. Pl.* 389. *Hudſ.* 131. *Relh.* 128. *Sibth.* 105. *Curt. Lond. faſc.* 1. *t.* 20. *Fl. Dan. t.* 438 *&* *t.* 525.
A. vulgaris, ſeu Morſus gallinæ. *Raii Syn.* 347.

WE moſt readily follow Dr. Withering in his removal of this plant from the genus of *Alſine*, with which it has no natural affinity, nor any agreement in botanical character, except having generally but 5 ſtamina. The genuine ſpecies of *Alſine* reſemble *Arenaria tenuifolia* in habit, and have undivided petals (a very important mark) and a 3-valved capſule: the plant now under conſideration has deeply cloven petals, and a 6-valved capſule, the eſſential characters, and all the habit, of a *Stellaria*, ſee our *t.* 92. Nothing is more common than for ſome plants of a genus to have occaſionally, or even conſtantly, but half their proper number of ſtamina.

The *Stellaria media* is a common weed in every ſoil and ſituation, eſpecially in cultivated ground, flowering from the beginning of ſpring till the end of autumn; for, though the root is annual, the ſeedlings moſtly ſtand the winter. The ſtems are ſeveral, proſtrate, brittle and ſlender at the bottom, leafy, marked on one ſide from joint to joint, but in an alternate manner, with a hairy line, by which deciſive character, pointed out by Mr. Curtis, all its Proteus-like varieties (of which we here exhibit two very different ones) may be known at once from every plant of its natural order, and particularly from *Ceraſtium aquaticum*. Leaves oppoſite, ovate, entire, ſmooth, on, longer or ſhorter, fringed foot-ſtalks, and folded together at night. Flowers on ſolitary axillary or terminal ſtalks, which are hairy on one ſide. Calyx hairy, longer than the petals. Stamina 10 or 5, rarely but 3, each with a gland at its baſe. Seeds rough, pale brown.

It is a good vegetable boiled like ſpinach. Small birds eat the whole herb, as do young poultry.

G.R. III.
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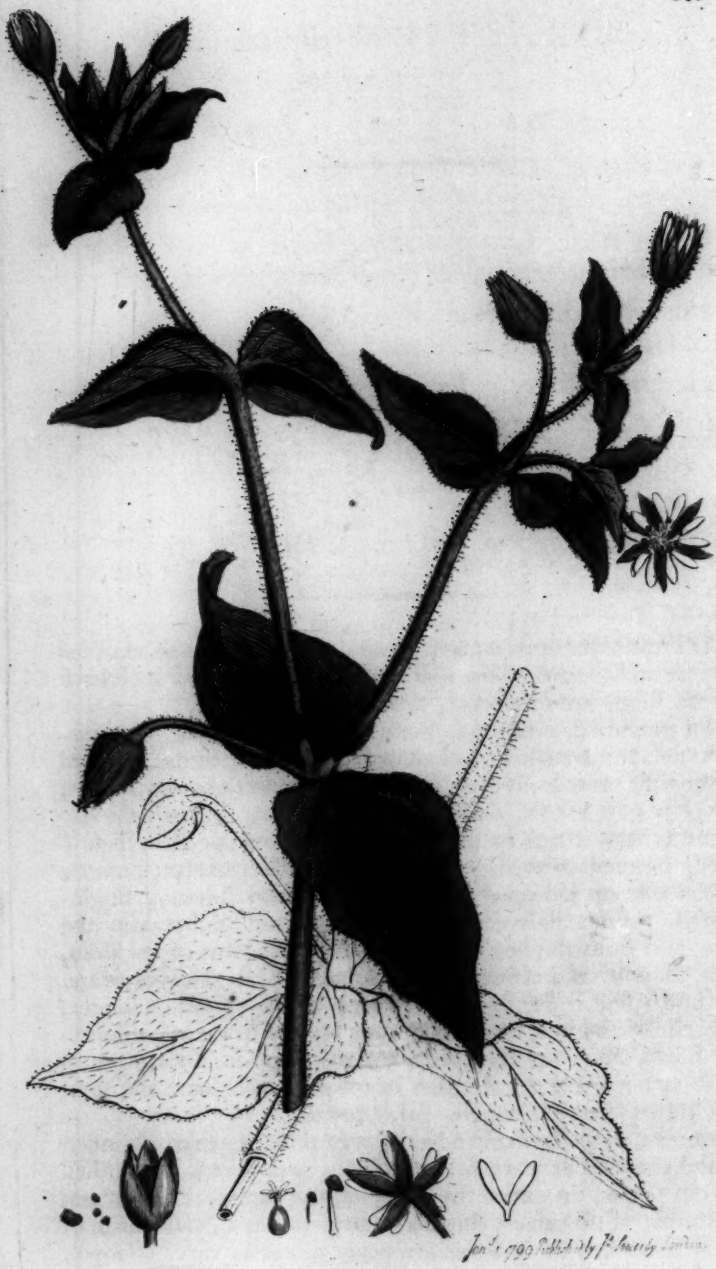


Jan.ʸ 1799 Published by J.ᴿ Sowerby London

CERASTIUM aquaticum.

Water Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* cloven. *Capſ.* of one cell, burſting at the top.

SPEC. CHAR. Leaves heart-ſhaped, ſeſſile. Flowers lateral, ſolitary. Fruit drooping.

SYN. Ceraſtium aquaticum. *Linn. Sp. Pl.* 629. *Hudſ.* 202. *With.* 436. *Relh.* 180. *Sibth.* 147. *Curt. Lond. faſc.* 1. *t.* 34.

Alſine major repens perennis. *Raii Syn.* 347.

NOT unfrequent in watery places, particularly the margins of rivers and clear ditches, among reeds and buſhes, by which its weak ſtems are ſupported, flowering in July.

Root perennial, creeping. Stems 2 feet high, weak, procumbent unleſs ſupported, branched or forked, leafy, round, clothed all over with prominent glandular hairs; the bark is very brittle, the woody part tough, elaſtic, and tubular, as in *Stellaria media* and others of this natural family. Leaves oppoſite, heart-ſhaped, pointed, waved, entire, hairy, ſeſſile, except ſome on the younger or radical ſhoots. Flower-ſtalks ſolitary, ſingle-flowered, round, hairy, each ſpringing laterally between the leaves, and from the ſide of the neighbouring joint of the ſtem, rather than from between its branches. Calyx-leaves ovate, hairy and viſcid. Petals about as long as the calyx, or longer, deeply cloven, white. Stamina always 10, and ſtyles as conſtantly 5, blunt, hairy on the inſide. Capſule ovate, ſplitting into 5 teeth rather more deeply than in other ſpecies of *Ceraſtium*. Seeds kidney-ſhaped, rough, pale brown.

Linnæus, as we have already obſerved p. 92, once confounded this and the *Stellaria media* with *Stellaria nemorum*. In habit, deep-cut petals, and even the ſhape of the capſule, though not the number of its valves, this is certainly rather a *Stellaria* than a *Ceraſtium*; but the 5 ſtyles are never found to vary. Scopoli refers ſo many *Arenariæ*, *Spergulæ*, and *Ceraſtia* to his genus of *Stellaria*, that his authority in this caſe is of no weight.

G.R. III.

CICHORIUM Intybus.

Wild Succory.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Receptacle* ſlightly chaffy. *Cal.* ſurrounded with ſcales. *Seed* crowned with teeth.

SPEC. CHAR. Flowers ſeſſile, in pairs. Leaves runcinate.

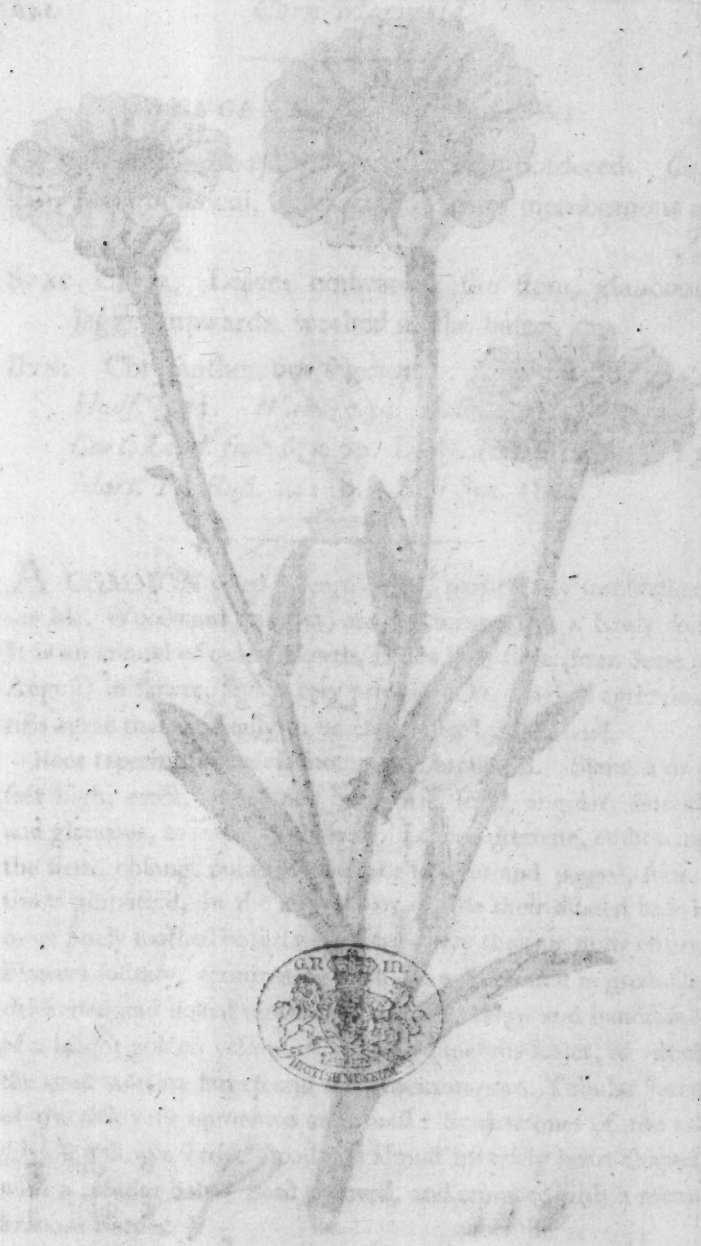
SYN. Cichorium Intybus. *Linn. Sp. Pl.* 1142. *Hudſ.* 348. *With.* 693. *Relh.* 302. *Sibth.* 243. *Curt. Lond. faſc.* 4. *t.* 56. *Mart. Fl. Ruſt. t.* 144.

C. ſylveſtre. *Raii Syn.* 172.

VERY common in the borders of fields, by road ſides, and in all ill cultivated or waſte land, preferring however ſomething of a calcareous ſoil, and flowering in July or Auguſt.

Root perennial, fleſhy, tap-ſhaped, often branched, running deep into the ground, milky. Stem 2 or 3 feet high, erect, hard and tough, wand-like, alternately branched, angular above, briſtly, producing many flowers, for the moſt part in pairs, and accompanied by ſmall ſtem-claſping leaves. The radical leaves are numerous, ſpreading, long, runcinate, roughiſh. Flowers ſeſſile, large and handſome, of a brilliant ſky blue, rarely white, compoſed of numerous, ligulate, 5-toothed florets. Common calyx of erect, parallel, linear leaves, with a rough keel, reflexed as the ſeeds ripen, ſurrounded at the baſe with a ſeries of ſhorter leaves or ſcales. Receptacle punctate, and ſcattered with a few chaffy hairs. Seeds angular, crowned with ſeveral ſhort chaffy teeth.

When Mr. Curtis deſcribed the Wild Succory he conſidered it as a beautiful but noxious weed, and ſo it was generally conſidered. Dr. Withering mentions it as eatable in ſallads, and that the dried roots will make bread; adding, after the *Amœnitates Academicæ*, that ſheep, goats, and ſwine eat it, but cows and horſes refuſe it. This laſt is a miſtake. The beſt account of the agricultural uſes of the Succory are in Profeſſor Martyn's too much neglected *Flora Ruſtica*, where its culture and uſes are detailed. I have been an eye-witneſs to the experiments made in France upon this plant, its luxuriant growth when cultivated, and its value as an early fodder for horſes and cows.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Jan.y 1.1799 Published by J.s Sowerby London

CHRYSANTHEMUM ſegetum.

Corn Marigold.

SYNGENESIA Polygamia-ſuperflua.

Gen. Char. *Receptacle* naked. *Seed* bordered. *Cal.* hemiſphærical, imbricated; ſcales membranous at the edge.

Spec. Char. Leaves embracing the ſtem, glaucous, jagged upwards, toothed at the baſe.

Syn. Chryſanthemum ſegetum. *Linn. Sp. Pl.* 1254. *Hudſ* 371. *With.* 735. *Relh.* 321. *Sibth.* 257. *Curt. Lond. faſc.* 6. *t.* 60. *Dickſ. H. Sicc. faſc.* 6. 13. *Mart. Fl. Ruſt. t.* 110. *Raii Syn.* 182.

A COMMON weed in corn-fields, particularly troubleſome (as Mr. Woodward remarks) among turneps on a ſandy ſoil. It is an annual of quick growth, laſts a long time (from June to Auguſt) in flower, and is very prolific. Our Engliſh agriculturiſts agree that it is only to be eradicated by the hand.

Root tapering, ſlender, not much branched. Stem 2 or 3 feet high, erect, alternately branched, leafy, angular, ſmooth and glaucous, as is the whole herb. Leaves alternate, embracing the ſtem, oblong, pointed, more or leſs cut and jagged, ſometimes pinnatifid, in the upper part, while their dilated baſe is more finely toothed or ſerrated; very rarely they are quite entire. Flowers ſolitary, terminating each branch, which is gradually thickened and naked upwards; they are large and handſome, of a bright golden yellow. Calyx of numerous ſcales, of which the innermoſt are largeſt and moſt membranous. Tubular florets of the diſk very numerous and ſmall; ligulate ones of the radius in a ſimple ſeries, broad and almoſt inverſely heart-ſhaped, with a tubular baſe. Seed grooved, and crowned with a membranous border.

CHRYSANTHEMUM segetum.

Corn Marigold.

Gen. Char. Receptacle naked. Seed bordered. Calyx hemispherical, imbricated; scales membranous at the edge.

Spec. Char. Leaves embracing the stem, glaucous, jagged upwards, toothed at the base.

Syn. Chrysanthemum segetum. Linn. Sp. Pl. 1254. Huds. 371. Fl. Lond. 135. Relh. 341. Sibth. 357. Curt. Lond. fasc. 6. t. 60. Dill. Elth. 96. t. 73. Mart. Pl. Rar. t. 110. Fl. Dan. 182.

A COMMON weed in corn-fields, particularly troublesome (as Mr. Woodward remarks) among turnips on a sandy soil. It is an annual of quick growth, and a long time (from June to August) in flower, and is very prolific. Our English agriculturists agree that it is only to be eradicated by the hand.

Root tapering, slender, not much branched. Stem 2 or 3 feet high, erect, alternately branched, leafy, angular, smooth and glaucous, as is the whole herb. Leaves alternate, embracing the stem, oblong, pointed, more or less cut and jagged, sometimes pinnatifid, in the upper part, while their dilated base is more finely toothed or fringed; very rarely they are quite entire. Flowers solitary, terminating each branch, which is gradually thickened and naked upwards; they are large and handsome, of a bright golden yellow. Calyx of numerous scales, of which the innermost are largest and most membranous. Tubular florets of the disk very numerous and small: ligulate ones of the ray few in a single series, broad and almost invariably bean-shaped, with a tubular base. Seed grooved, and crowned with a membranous border.

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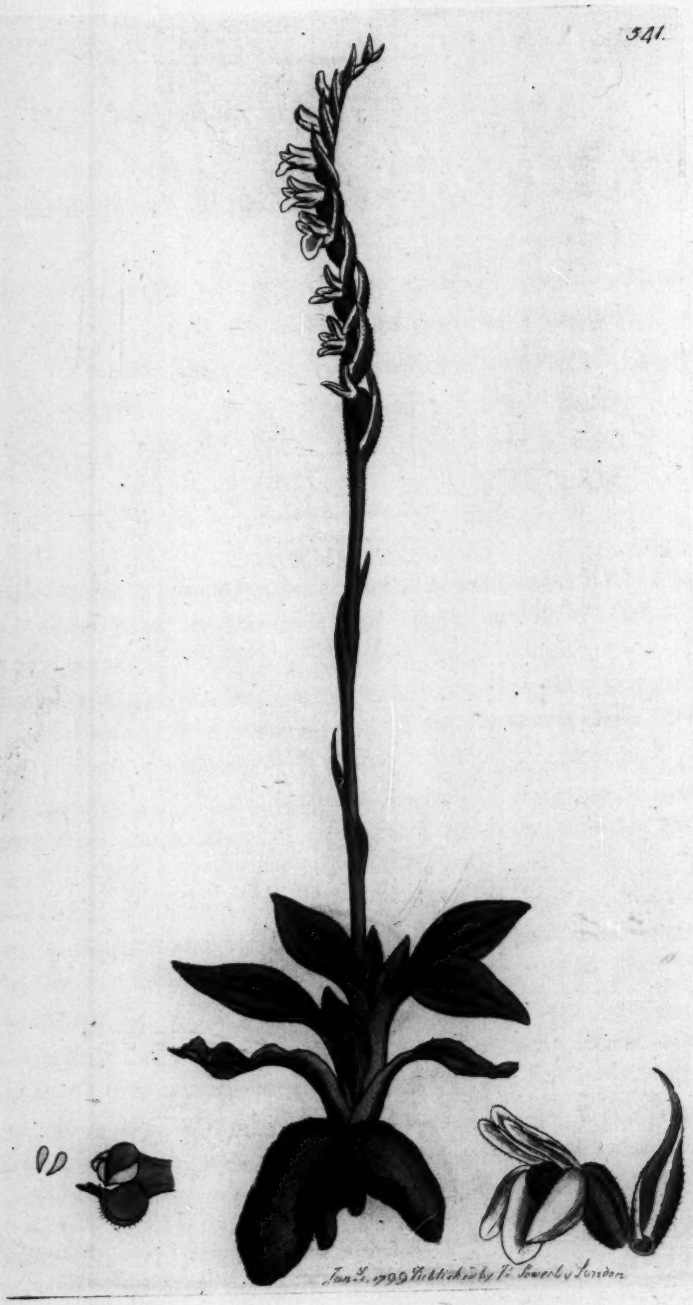

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OPHRYS ſpiralis.

Spiral Ophrys, or Ladies' Traces.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* conſiſting of a lip only, ſlightly carinated at the back.

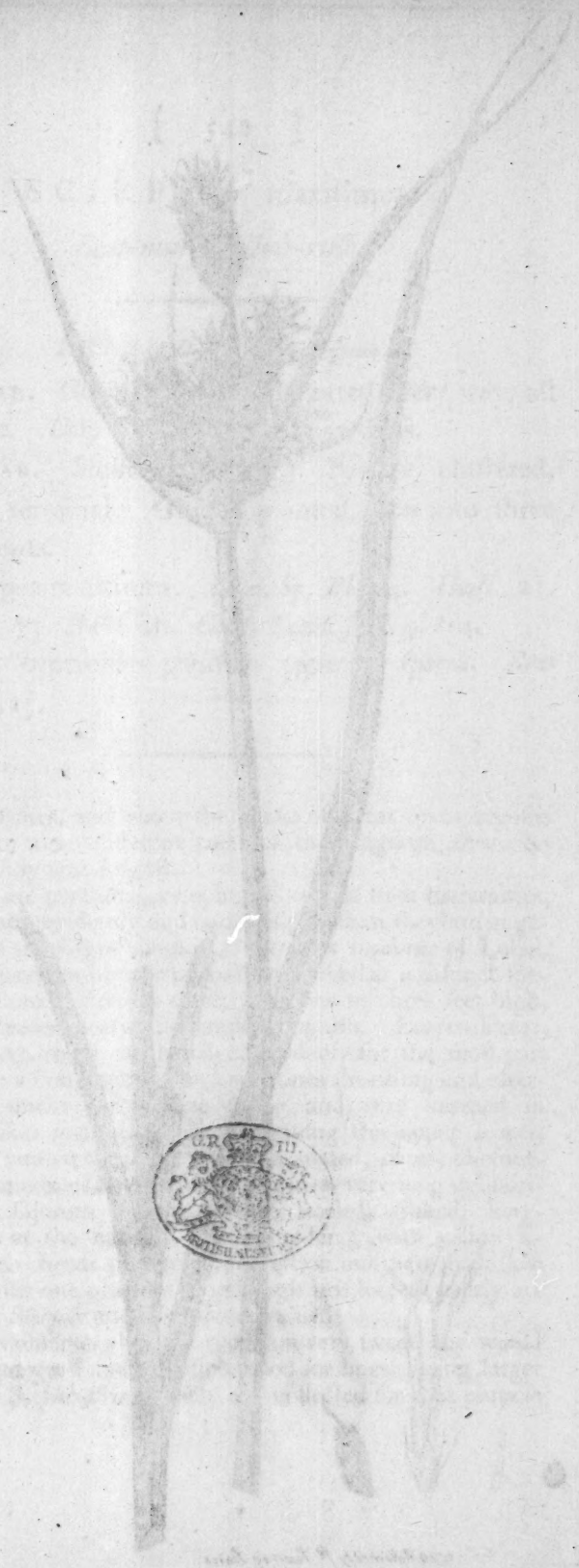
SPEC. CHAR. Bulbs cluſtered, oblong. Stem ſomewhat leafy. Flowers leaning ſpirally to one ſide. Lip undivided, crenate.

SYN. Ophrys ſpiralis. *Linn. Sp. Pl.* 1340. *Hudſ.* 389. *With.* 33. *Relh.* 337. *Sibth.* 12. *Curt. Lond. faſc.* 4. *t.* 59. *Dickſ. H. Sicc. faſc.* 10. 17.

Orchis ſpiralis alba odorata. *Raii Syn.* 378.

MISS Lyſons, to whom we were obliged for a wild ſpecimen of the *Adonis t.* 308, favoured us with this *Ophrys*, which may juſtly be reckoned among the rarer Britiſh plants; for although it grows in many parts of the kingdom occaſionally, either on dry gravelly or chalky hills or in meadows, and often in great plenty; it will ſeldom be found flowering two years together on the ſame ſpot, nor perhaps till 8 or 10 years after it has been firſt obſerved, notwithſtanding the root is perennial. Nor do the leaves conſtantly appear; or if they do, in ſome years they ſpeedily wither away. Its flowering ſeaſon is Auguſt or September.

The root conſiſts of ſeveral oblong downy bulbs, each appearing to be formed 2 or 3 years before it produces the flowering plant, as in *Satyrium albidum*, *t.* 505; only in the preſent caſe thoſe bulbs ſeem to be produced ſolitarily, not in pairs. Stem ſingle, 5 or 6 inches high, inveſted with a few ſmall ſheathing leaves. The radical leaves are ovate, ſpreading, glaucous, ſmooth, ſometimes finely pubeſcent about the edge. Spike terminal, erect, of many ſmall, greeniſh-white, ſeſſile, ſweet-ſcented flowers, leaning to one ſide, but arranged in a ſpiral line either to the right or left, and each overſhadowed by a concave pointed bractea. The whole ſpike, with its ſtalk, is downy and viſcid. Three upper petals adhering together. Lip oblong, crenate, with an obſolete lobe at the baſe. What appears to be the ſtigma is a very peculiar roundiſh hairy protuberance, with a cloven point, hanging as it were beneath the antheræ. See Dr. Stokes's full deſcription in Withering.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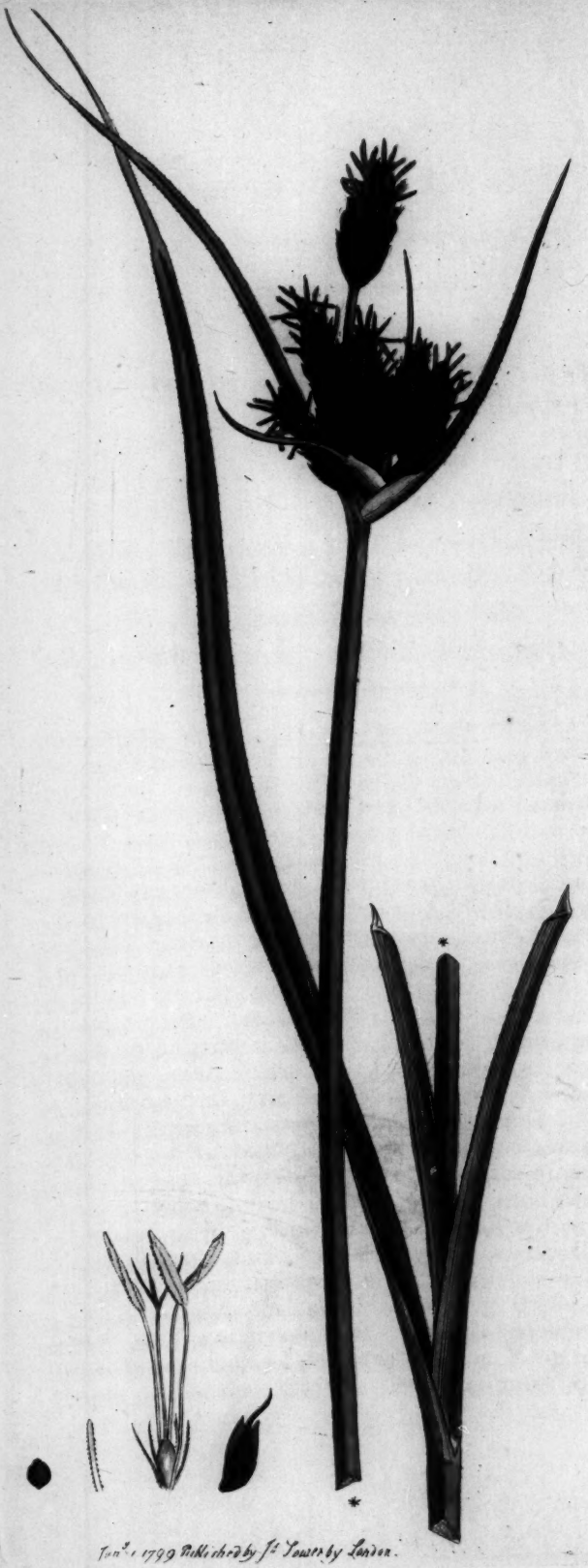

Jan.y 1. 1799 Published by Jas Sowerby London.

SCIRPUS maritimus.

Salt-marſh Club-ruſh.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated every way, all fertile. *Cor.* none. *Seed* 1, beardleſs.

SPEC. CHAR. Stem triangular. Panicle cluſtered, leafy, terminal. Glumes pointed, torn into three ſegments.

SYN. Scirpus maritimus. *Linn. Sp. Pl.* 74. *Hudſ.* 21. *With.* 77. *Relh.* 20. *Curt. Lond. faſc.* 4. *t.* 4.

Gramen cyperoides paluſtris paniculâ ſparsâ. *Raii Syn.* 425.

IN ſalt marſhes, and about the banks of great rivers expoſed to the tide, in many different parts of the kingdom, flowering throughout July and Auguſt.

The roots are perennial, creeping, knotty at their extremities, ſometimes more evidently and conſtantly ſo than they are in general; hence the *Cyperus rotundus littoreus inodorus* of Lobel, Ray, and others, has been erroneouſly deſcribed as a diſtinct ſpecies. The ſtem or ſtraw is erect, from one to three feet high, triangular, ſtriated, leafy, the angles roughiſh. Leaves linear, carinated, long, rough at the edge, ſuddenly for the moſt part contracted to a ſharp point; the lower ones ſheathing and alternate; thoſe under the panicle ſeſſile, and very unequal in length. Spikes forming a panicle among the upper leaves, more or leſs numerous, ſeſſile or pedunculated, ovate, cheſnut-coloured; ſometimes lengthened out into a very long cylindrical figure. Glumes ſhining, ovatee, keeled, ribbed, long-pointed, torn at the ſummit. Stamina long, with yellow linear antheræ. Seeds triangular, flatteſt on one ſide, furniſhed at the baſe with one or more ſhort rough briſtles; ſo nearly are the *genera* of *Scirpus* and *Eriophorum* allied!

Mr. Curtis obſerves that the roots are very ſweet, and would probably afford good and nutritious food for hogs, being larger than thoſe of S. *paluſtris*, which are collected for that purpoſe in Sweden.

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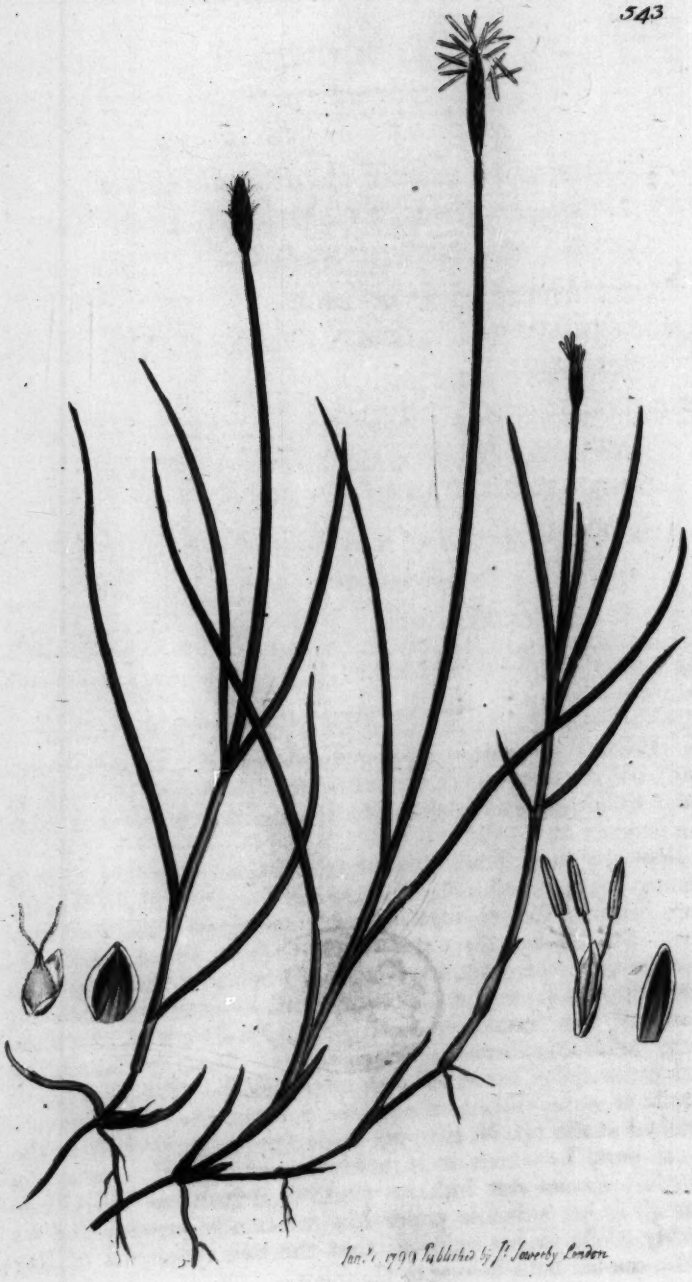

Jan.ry 1.1797 Published by J.t Sowerby London

CAREX dioica.

Small Carex.

MONŒCIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* inflated, permanent. *Seed* triangular, inveſted with the corolla.

SPEC. CHAR. Spikes ſimple, dicœcious. Corolla ribbed, finely ſerrated.

SYN. Carex dioica. *Linn. Sp. Pl.* 1379. *Hudſ.* 401. *With.* 86. *Relh.* 349. *Sibth.* 26. *Gooden. Tr. of Linn. Soc. v.* 2. 139.

Gramen cyperoides minimum, Ranunculi capitulo rotundo. *Raii Syn.* 425.

β. G. cyperoides minus, Ranunculi capitulo longiore. *Raii Syn.* 425.

FOUND in ſpongy bogs not unfrequently, though it may eaſily be overlooked. It flowers in May, ripening its ſeed in June or July, when its round heads are more conſpicuous than the flowers.

Root creeping, ſlender, perennial. Stems aſcending, 5 or 6 inches high, ſimple, ſlender, roundiſh, channelled, ſmooth, leafy below. Leaves ſheathing, triangular, ſmooth, very narrow. Stipula very ſhort and blunt. Spikes linear, erect, obtuſe, ſolitary; the male from one root, the female from another. Scales browniſh or ruſty-coloured, with a green rib, ſmooth; thoſe of the female broadeſt. Stamina ſlender. Antheræ long, ſulphur-coloured. Stigmas two. Seeds ſpreading, by which the ſpike becomes ovate or roundiſh. The permanent corolla is ovate, ribbed on one ſide, plain on the other, ſcarcely notched at the tip, its margins finely ſerrated, eſpecially in the upper part, by which it is readily known from C. *capitata*, a Swediſh ſpecies not hitherto found in Britain, as Dr. Goodenough in his valuable paper has ſufficiently proved; and we readily aſſent to his opinion, that the two ſynonyms of Ray above quoted both belong to C. *dioica*.

GR III
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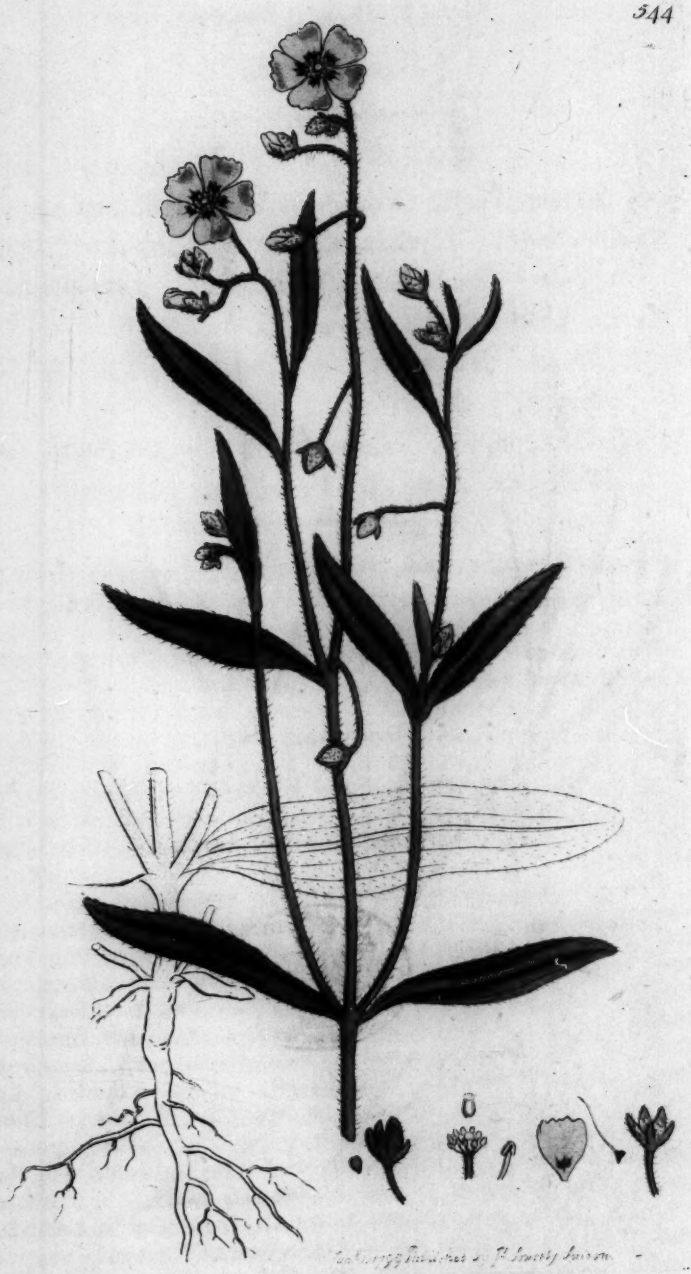

CISTUS guttatus.

Spotted-flowered Ciſtus.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* of 5 leaves, 2 of which are ſmaller than the reſt. *Petals* 5. *Capſ.* with 3 valves.

SPEC. CHAR. Herbaceous, without ſtipulæ. Leaves oppoſite, lanceolate, three-nerved. Bracteæ none.

SYN. Ciſtus guttatus. *Linn. Sp. Pl.* 741. *Hudſ.* 232. *With.* 491. *Curt. Lond. faſc.* 6. *t.* 33. *Dickſ. H. Sicc. faſc.* 9. 7.

C. flore pallido, punicante maculâ inſignito. *Raii Syn.* 342.

THIS ſhort-lived beauty has been obſerved in ſandy paſtures of Jerſey and the iſle of Man. Its petals are expanded to the earlieſt ſunbeams of the morning, but ſcarcely ſupport their influence for more than 4 or 5 hours, except under a miſty or autumnal ſky. Long before noon in general they fall off, and the calyx cloſes. Having no hopes of obtaining wild ſpecimens in a ſtate fit for drawing, we have been obliged, like Mr. Curtis, to have recourſe to a garden one, communicated by the Rev. Mr. Watts, F.L.S. of Aſhill, Norfolk, in whoſe choice collection many rare plants the moſt difficult of culture (which this indeed is not) grow and propagate themſelves in all their native luxuriance.

The root is annual. Stem upright, branched, ſquare. Whole herb clothed with ſlender, white, ſpreading, ſoft hairs. Leaves oppoſite, lanceolate, bluntiſh, entire, with one principal nerve, and two or more lateral ones. Cluſters terminal, ſimple, their ſlender partial flower-ſtalks generally without bracteæ, though ſometimes they are accompanied by lanceolate ones, ſmaller than the leaves. Calyx very hairy, and marked with blackiſh glandular dots. Petals wedge-ſhaped, unequally crenate, bright yellow, with an elegant purple ſpot near the baſe. Stamina ſhort. Stigma ſeſſile. Capſule ovate.

This herb flowers naturally about June and July. It is ſomewhat viſcid, and has a fragrant ſmell; but our ſpecimens are inferior in both theſe reſpects to thoſe produced in the warmer climates of Italy, Spain, and the ſouth of France.

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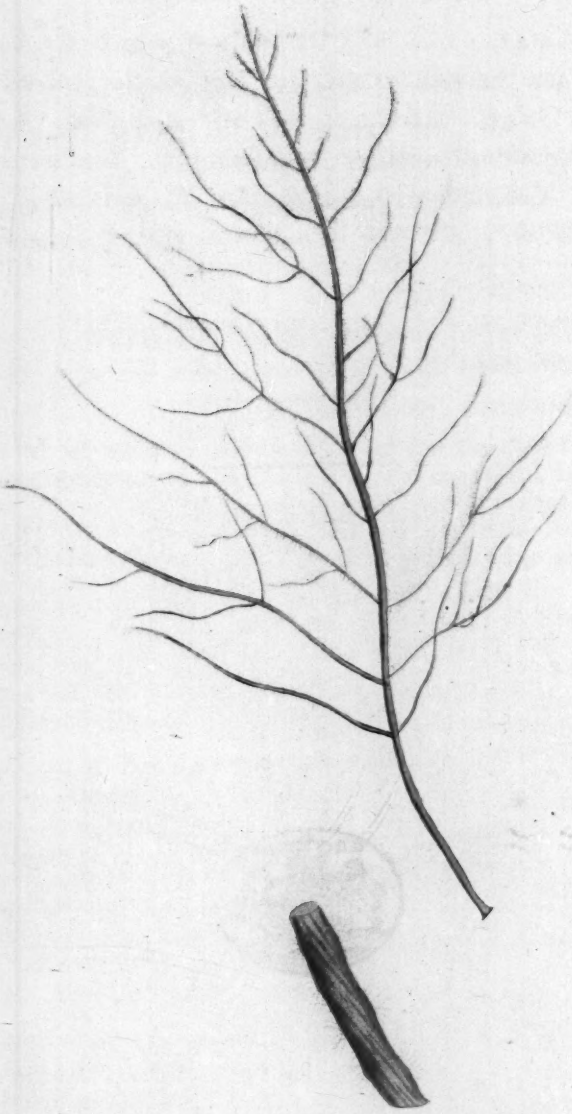

FUCUS pedunculatus.

Pedunculated Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in cluſtered tubercles, which burſt at their ſummits.

SPEC. CHAR. Stem thread-ſhaped, ſimply branched in a pinnate manner. Branches capillary, ſomewhat two-ranked. Tubercles obovate, ſcattered, on ſimple footſtalks.

SYN. Fucus pedunculatus. *Hudſ.* 587. *With. v.* 4. 120. *Goodenough & Woodward in Linn. Tr. v.* 3. 213.

F. Gærtnera. *Gmel. Fuc.* 164. *t.* 19.

SPECIMENS of this rare and elegant *Fucus* have been ſent us from the Yarmouth beach by Mr. D. Turner, along with a drawing moſt accurately taken by the hand of Mrs. Turner. It is a ſpecies hitherto little known. The deſcription of Hudſon is imperfect, but there ſeems no doubt of its being his *pedunculatus*. We think there can be as little uncertainty about Gmelin's ſynonym, which the authors of the valuable paper in the Linnæan Tranſactions heſitated to quote, having no original ſpecimens to compare with theirs.

It belongs to that ſubdiviſion of the genus whoſe ſtems are round or thread-ſhaped, and is ſimply branched, the branches being by no means regularly alternate, nor uniformly diſtant from each other; but they nevertheleſs ſpread nearly in two ranks, and are ſimple, long and capillary, not all of an equal length. There are no leaves. The branches are thickly ſet with minute oblong or obovate capſules, on ſimple ſtalks generally of their own length, and theſe capſules are for the moſt part crowned with a ſpreading tuft of green filaments, which are jointed. The colour of the whole plant beſides is a pale browniſh olive. No one has yet aſcertained whether theſe filaments certainly belong to the plant, or are a paraſitical *Conferva*. Their being jointed, and not always preſent, favours the latter opinion. Or it is poſſible the plant may be viviparous, and the filaments its offſpring budding out of the capſule; a ſuppoſition we ſhould readily adopt, were it not for the joints, which certainly are not to be ſeen in the ſtem or branches of the *Fucus* itſelf.

G.R. III.

Jun.ª 1.1799 Published by J. Sowerby

CONFERVA villoſa.

Hairy Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in round, ſolitary, cloſed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Oppoſitely branched, and obſcurely jointed, ſtudded with hairy warts. Branches nearly ſimple, diſtant.

SYN. Conferva villoſa. *Hudſ.* 603. *With. v.* 4. 141.

SENT from Yarmouth beach with the preceding *Fucus*, and accompanied by an equally excellent drawing by the ſame lady. It is given as the C. *villoſa*, on the authority of an original ſpecimen in Sir J. Banks's herbarium. We cannot deſcribe its characteriſtic marks better than in Mr. Turner's own words.

" C. *villoſa* is one of our ſcarceſt plants, and was hardly ever " found at Yarmouth before this ſummer, 1798. It is a very " remarkable link in the chain of marine vegetables, not being " jointed in the ſtem, but ſtudded with knobs like C. *fluviatilis*, " while in the youngeſt ſhoots there are faint appearances of " *diſſepimenta*, viſible only with a microſcope. In texture it is " ſimilar to *Fucus pedunculatus* (ſee *t.* 545), for which it may " eaſily be miſtaken as it lies on the beach, and which it very " cloſely reſembles in the down that ſprings from the knobs in " the ſtem, and which completely covers the leſſer ſhoots. Its " branches are few, remarkably oppoſite, and generally ſtarting " from the ſtem at right angles."

It is not improbable that the fructification may be ſituated in the knobs of the ſtem, and that it may be viviparous, the hairs of thoſe knobs being no other than young plants. This muſt be confirmed or refuted by repeated examinations made at different ſeaſons of the year.

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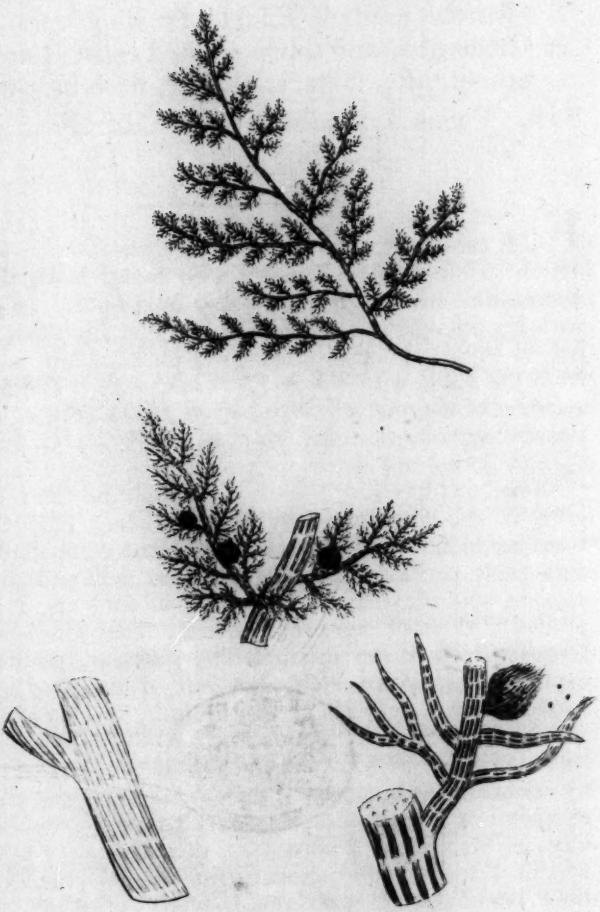


Feb.y 1799 Published by J. Sowerby.

CONFERVA byſſoides.

Tufted Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in round, ſolitary, cloſed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Purpliſh brown, doubly branched, obſcurely jointed, thickly ſet with minute, doubly branched, and finely jointed tufts. Capſules from thoſe tufts, ſolitary, globoſe, dark brown.

SYN. Fucus byſſoides. *Gooden. & Woodw. in Linn. Tranſ. v.* 3. 229.

FOR this elegant, though not very uncommon, ſea weed we are obliged to Mr. D. Turner, who found it on the ſhore at Yarmouth, with its fructification, in Auguſt. In compliance with his opinion and that of the late Mr. Lightfoot, confirmed indeed beyond a doubt by our own examination, we remove it from the *Fuci*, with which Dr. Goodenough and Mr. Woodward, not without heſitation, have aſſociated it. Thoſe gentlemen remark, that though "all the branches ſeem jointed, "thoſe joints are obſervable only where there is a branch, or "where one has iſſued forth;" which however holds good only in the ſtem and leading branches. This *Conferva* is remarkable for the ſeries of little tufted compound branches, very finely divided, ranged all along its ſtem and chief ramifications, and the filaments of all theſe tufts are as completely jointed as thoſe of any other ſpecies. They alſo bear the fructification, which is a ſmall, ſeſſile, globular, pointed, ſolitary capſule, pellucid in itſelf, but full of deep-red ſeeds. The capſule ſeems to burſt at the ſummit, a character ſuppoſed rather to belong to the genus *Fucus*; but we have yet much to learn upon this ſubject, and the jointed ſtructure of the plant is by common conſent for the preſent taken as the moſt deciſive character of a *Conferva*. The dark parenchymous line is to be ſeen, as Mr. Turner obſerves, in this and many other ſpecies. In this it is compound, conſiſting of ſeveral parallel lines, like the tubes of the common cane (a ſpecies of palm), or ſtill more like the ſtructure of corals and corallines.

All the branches are alternate and gradually ſmaller upwards. Its colour when freſh is often a bright red.

CONFERVA byssoides.

Tufted Conferva.

CRYPTOGAMIA Alga.

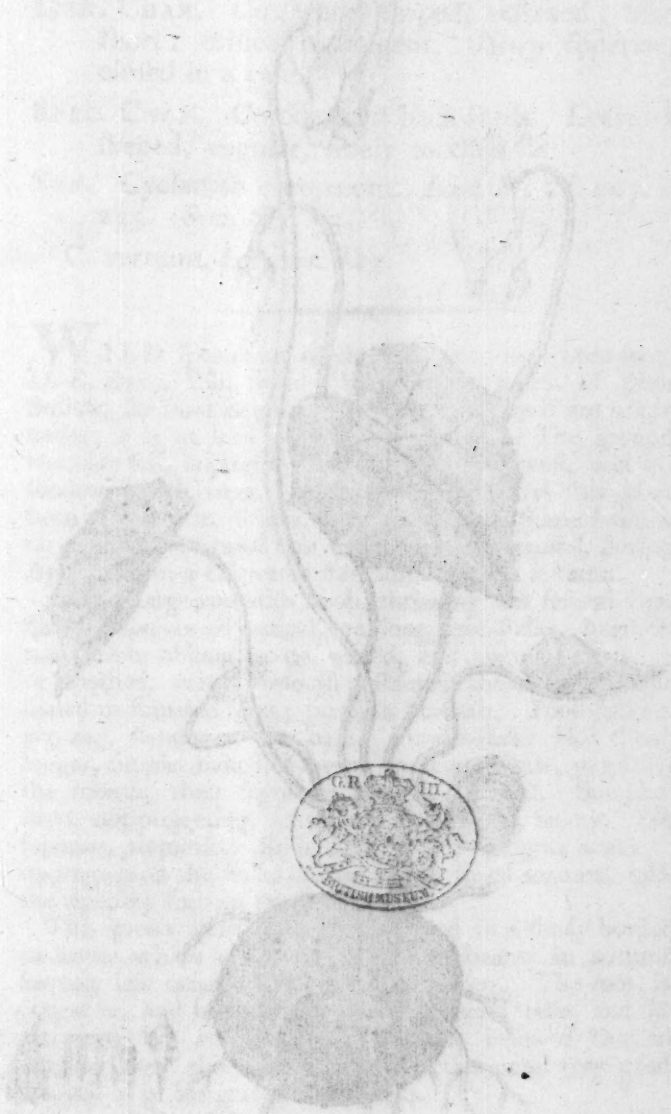
Gen. Char. Seeds produced in round, solitary, clofed tubercles, projecting from the frond, but united with it.

Spec. Char. Purplish brown, doubly branched, obfcurely jointed, thickly fet with minute, doubly branched, and finely jointed tufts. Capitules from thofe tufts, folitary, globofe, dark brown.

Syn. Fucus byssoides. Gooden. & Woodw. in Linn. Trans. v. 3. 229.

FOR this elegant, though not very uncommon, fea weed we are obliged to Mr. D. Turner, who found it on the fhore at Yarmouth, with its fructification, in Auguft. In compliance with his opinion and that of the late Mr. Lightfoot, confirmed indeed beyond a doubt by our own examination, we remove it from the Fuci, with which Dr. Goodenough and Mr. Woodward, not without hefitation, have aflociated it. Thofe gentlemen remark, that though "all the branches feem jointed, "thofe joints are obfervable only where there is a branch, or "where one has iflued forth;" which however holds good only in the ftem and leading branches. This Conferva is remarkable for the fingle or fimple tufted compound branches, very finely divided, ranged all along its ftem and chief ramifications, and the filaments of all thofe tufts are as completely jointed as thofe of any other fpecies. They alfo bear the fructification, which is a fmall, fefile, globular, pointed, folitary capfule, pellucid in itfelf, but full of deep-red feeds. The capfule feems to burft at the fummit, a character fuppofed rather to belong to the genus Fucus; but we have yet much to learn upon this fubject, and the jointed ftructure of the plant is by common conlent for the prefent taken as the moft decifive character of a Conferva. The dark purplifh brown hue is to be feen, as Mr. Turner obferves, in this and many other fpecies. In this it is compound, conlifting of feveral parallel lines, like the tubes of the common cane (a fpecies of palm), or ftill more like the ftructure of corals and coralines.

All the branches are alternate and gradually fmaller upwards. Its colour when frefh is often a bright red.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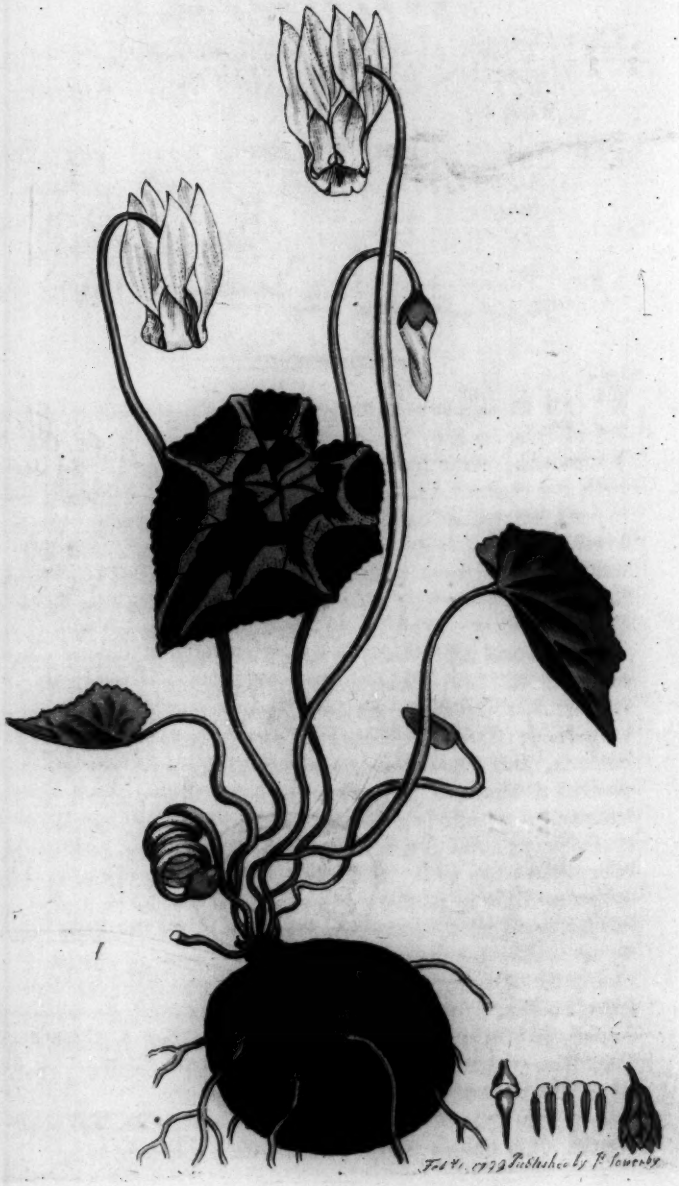


Feb.1. 1794 Published by P. Lowndes

CYCLAMEN europæum.

Spring Cyclamen or Sow-bread.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped, reflexed; tube very ſhort; orifice prominent. *Berry* ſuperior, encloſed in a caſe.

SPEC. CHAR. Corolla bent backwards. Leaves heart-ſhaped, angular, finely toothed.

SYN. Cyclamen europæum. *Linn. Sp. Pl.* 207. *With.* 235. *Sym. Syn.* 53.

C. vernum. *Ger. em.* 843.

WILD ſpecimens of the Cyclamen have been ſent us by D. E. Davy, Eſq. from a bank in the pariſh of Bramfield, Suffolk, far from any houſe or garden, where if not originally a native, it is at leaſt perfectly naturalized. The ground is a wet clay ſoil, ſloping towards the ſouth or weſt, and is overſhadowed with trees. Gerarde was told that this plant had been obſerved in Wales, Lincolnſhire and Somerſetſhire; but no one has confirmed that report. It is perennial, flowering in April, and in a cultivated ſtate ſometimes in autumn.

Root a large roundiſh knob, throwing out ſeveral branched fibres. Leaves all radical, on long foot-ſtalks, heart-ſhaped, roundiſh or oblong, acute, waved, and angular, finely crenate or toothed, veiny, ſmooth; ſtained above with white radiated or ſinuated ſpots; purpliſh beneath. Foot-ſtalks round, zig-zag, ſlender at the baſe. Flower-ſtalks like them, but longer, ſimple, naked. Flowers drooping, white, purpliſh about the mouth, their ſegments upright, twiſted. Stamina very ſhort, not projecting. Antheræ awl-ſhaped, tawny. Germen ſuperior, roundiſh. Style awl-ſhaped. Stigma acute. After impregnation the ſtalks curl in a cloſe ſpiral manner, and bury the ripening fruit in the earth.

This pretty plant is eaſily cultivated in a ſhady border, and its leaves, which are in their greateſt beauty in autumn, are ſcarcely leſs ornamental than the flowers. The root is very purgative, and has a nauſeous bitter acrid taſte, not at firſt perceived, but very durable. Gerarde believed that merely ſtepping over this herb cauſed abortion, and very prudently guarded it in his garden with ſticks.

CYCLAMEN europæum.

Spring Cyclamen or Sow-bread.

PENTANDRIA Monogynia.

GEN. CHAR. Cor. wheel-shaped, reflexed; tube very short; orifice prominent. Berry superior, enclosed in a calix.

SPEC. CHAR. Corolla bent backwards. Leaves heart-shaped, angular, finely toothed.

SYN. Cyclamen europæum. Linn. Sp. Pl. 207. With. 235. Syn. 53.

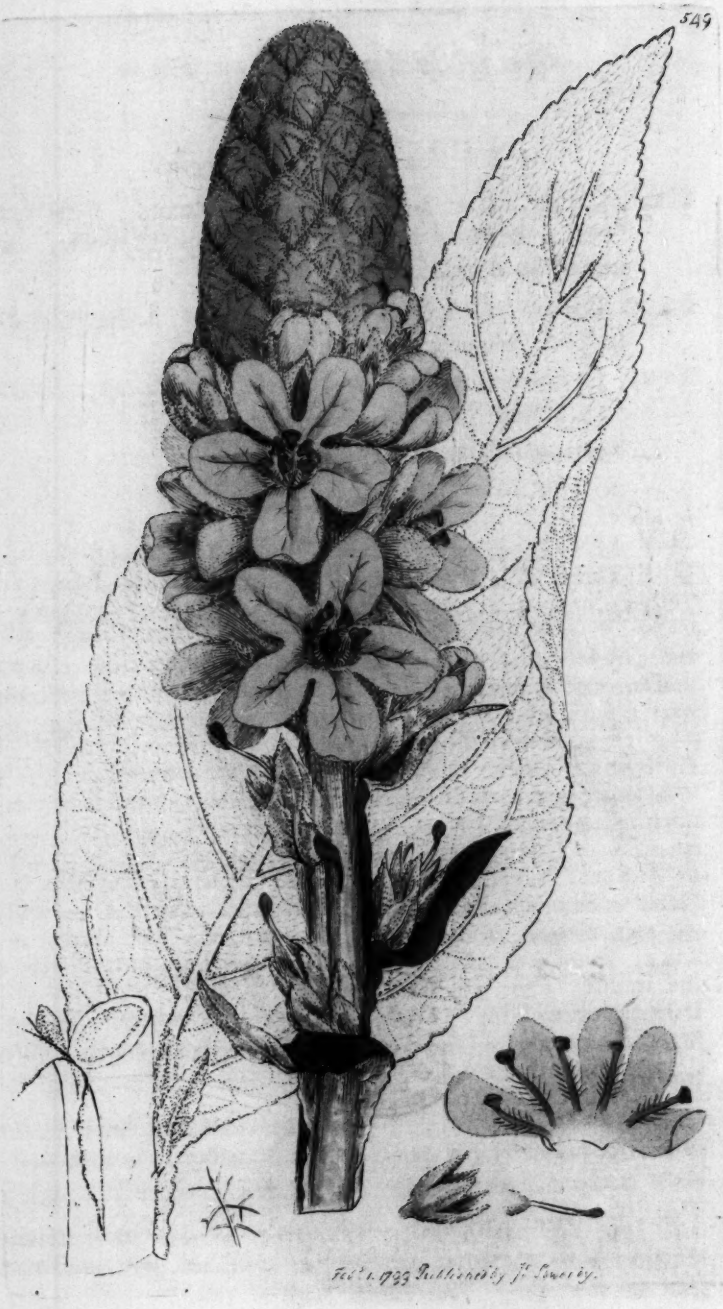
C. vernum. Curt. en. 343.

WILD specimens of the Cyclamen have been sent us by D. R. Davy, Esq. from a bank in the parish of Bramfield, Suffolk, far from any house or garden, where it not originally a native, it is at least perfectly naturalized. The ground is a wet clay soil, sloping towards the south or west, and is overshadowed with trees. Gerarde was told that this plant had been observed in Wales, Lincolnshire and Somersetshire; but no one has confirmed that report. It is perennial, flowering in April, and in a cultivated state sometimes in autumn.

Root a large roundish knob, throwing out several branched fibres. Leaves all radical, on long foot-stalks, heart-shaped, roundish or oblong, acute, waved, and angular, finely crenate or toothed, veiny, smooth; stained above with white radiated or zonated spots; purplish beneath. Foot-stalks round, zig-zag, slender at the base. Flower-stalks like them, but longer, simple, naked. Flowers drooping, white, purplish about the mouth, their segments upright, twisted. Stamina very short, not projecting. Anthers awl-shaped, tawny. Germen superior, roundish. Style awl-shaped. Stigma acute. After impregnation the tube coils in a close spiral manner, and bury the ripening fruit in the earth.

This pretty plant is easily cultivated in a shady border, and its leaves, which are in their greatest beauty in autumn, are scarcely less ornamental than the flowers. The root is very purgative, and has sometimes been used in dropsies, but at first perceived, but very violent. Gerarde believed that merely stepping over this plant caused alienation, and very prudently guarded it in his garden with thorns.

G.R. III.



Feb.ʳ 1. 1793 Published by J.ᴴ Sowerby.

VERBASCUM Thapſus.

Great Mullein, or High Taper.

PENTANDRIA Monogynia.

GEN CHAR. *Cor.* wheel-ſhaped, a little irregular. *Capſ.* ſuperior, with 2 cells and 2 valves. *Stamina* bearded.

SPEC. CHAR. Leaves decurrent, woolly on both ſides. Stem ſimple.

SYN. Verbaſcum Thapſus. *Linn. Sp. Pl.* 252. *Hudſ.* 89. *With.* 248. *Relh.* 88. *Sibth.* 77.
V. mas latifolium luteum. *Raii Syn.* 287.

FREQUENT on banks, hedges, and waſte ground, more eſpecially on a gravelly or calcareous ſoil, flowering in July and Auguſt.

The root is biennial, ſpindle-ſhaped. Stem erect, ſimple, ſtiff and ſtraight, from 3 to 5 feet high, leafy, woolly, angular, winged. Leaves alternate, decurrent, oblong, nearly entire, very thickly clothed on both ſides with white, branched, intricate, woolly hairs. Spike terminal, erect, cylindrical, denſe, many-flowered. Flowers ſeſſile, cloſely ſet, bright yellow, rarely white. Stamina yellow, hairy. Antheræ red. Stigma club-ſhaped.

Mr. Robſon communicated to Dr. Withering a mule plant, produced under his own eyes, from this ſpecies impregnated by V. nigrum. Indeed no genus is more apt to engender ſuch than this.

A pint of cow's milk with a handfull of the leaves of this Mullein, or the V. *pulverulentum*, *t.* 487, boiled in it to half a pint, ſweetened with ſugar, ſtrained and taken at bed-time, is a pleaſant emollient and nutritious medicine for allaying a cough, and more particularly for taking off the pain and irritation of the piles. The whole herb is mucilaginous, and a little narcotic.

G.R. III.
BRITISH MUSEUM

Dec.ʳ 1. 1799 Published by J.ᵗ Sowerby

VERBASCUM virgatum.

Large-flowered Mullein.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped, a little irregular. *Capſ.* ſuperior, with 2 cells and 2 valves. *Stamina* bearded.

SPEC. CHAR. Leaves oblong-lanceolate, dentate, ſeſſile; the radical ones ſomewhat lyrate, downy. Stem branched. Flowers cluſtered, nearly ſeſſile.

SYN. Verbaſcum virgatum. *With.* 250. *Sym. Syn.* 56. Blattaria flore amplo. *Ger. em.* 778.

DR. STOKES firſt clearly aſcertained this ſpecies, which in many reſpects is cloſely allied to V. *Blattaria*, *t.* 393; but we ſee no reaſon to think it a variety, nor ſcarcely a mule, of that, eſpecially as it is copiouſly propagated by ſeed, and as the *Blattaria* does not grow where this is found. It is biennial, flowering in September and later. Our worthy friend the Rev. Mr. Baker took this individual plant, when a ſeedling, from one of the ſpots near Worceſter mentioned in Withering, and it flowered in his garden. He informs us this Mullein was firſt obſerved growing plentifully in a field near Wrexham, by Mrs. Naſh, who planted it in her garden at Bevere, from whence probably its ſeeds got to the neighbouring turnpike-road to Ombersley, and from thence to the lane leading to Gregory's mill.

The root is thick, branched. Whole plant much larger and ſtronger than the *Blattaria*, clothed generally all over, and the lower leaves conſtantly, with ſhort, prominent, often forked, glandular hairs. Stem 5 or 6 feet high, branched from the bottom, leafy, round, but ſomewhat angular or winged from the leaves running down it. Radical leaves reſembling thoſe of the primroſe, but larger, and more or leſs lyrate; thoſe on the ſtem oblong-lanceolate, doubly dentate, ſeſſile; the upper ones heart-ſhaped long-pointed, dentate, ſeſſile, and in ſome degree embracing the ſtem. Flowers axillary, cluſtered, on ſhort woolly ſtalks, and ſome of them ſeſſile, large, yellow, purple about the centre, ſoon falling off. Segments of the calyx ovate, larger and broader than in V. *Blattaria*. Stamina yellow, bearded in the middle with purple.

Mr. Baker has obſerved that the woollineſs of the ſtem and branches varies in degree, and that weak plants have ſometimes ſolitary flowers, but always on much ſhorter thicker ſtalks than the *Blattaria*.

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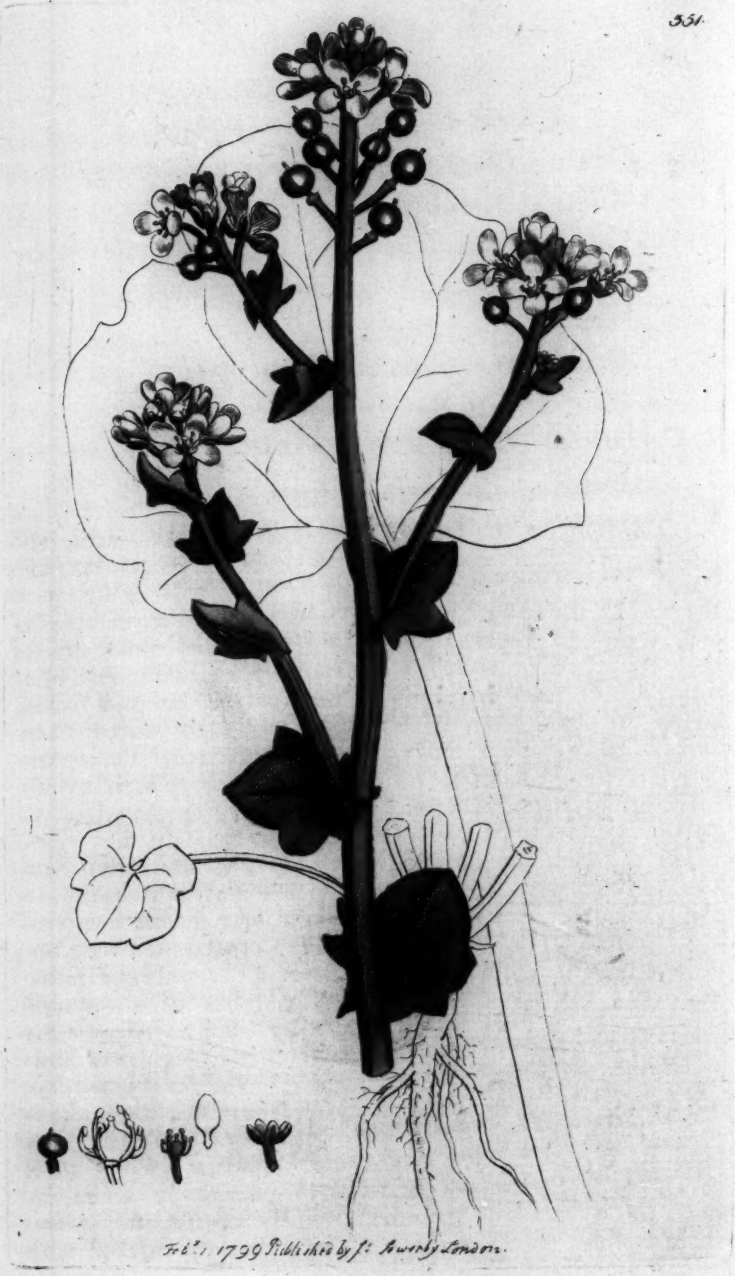


Feb.ʳ 1. 1739 Published by Jᵒˢ Sowerby London.

COCHLEARIA officinalis.

Common Scurvy-graſs.

TETRADYNAMIA Siliculoſa.

GEN. CHAR. *Pouch* turgid, rugged; valves gibbous, obtuſe. *Calyx* ſpreading, concave.

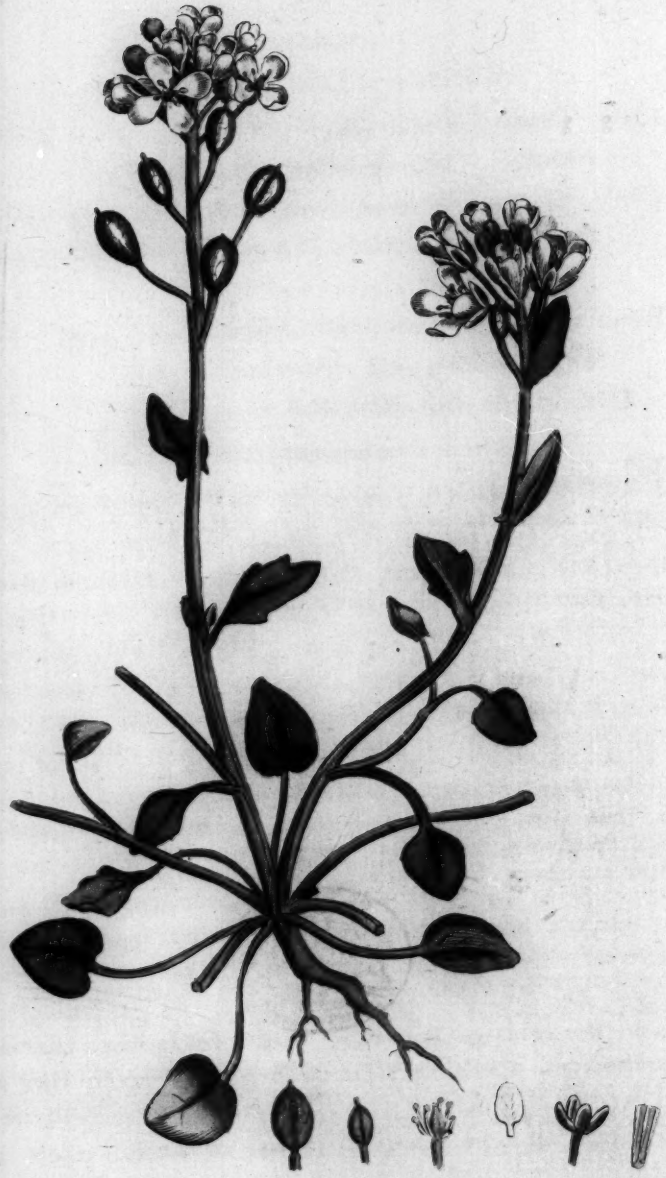
SPEC. CHAR. Radical leaves roundiſh; thoſe on the ſtem oblong, and ſomewhat ſinuated. Fruit globoſe.

SYN. Cochlearia officinalis. *Linn. Sp. Pl.* 903. *Hudſ.* 283. *With.* 571.
Cochlearia. *Raii Syn.* 302.

COMMON on the ſea-coaſt in muddy or rocky places, and like the *Statice Armeria*, and a few other ſea plants, it is alſo found in alpine ſituations far inland. Ray tells us he ſowed the ſeed of the mountain variety, which is ſmaller, in his garden, where it produced plants of the ſize and appearance of thoſe that grow on the coaſt. Yet Dr. Richardſon and Dillenius, in the next paragraph of the *Synopſis*, contradict this, ſaying the plants from Wales and Craven yearly ſowed themſelves in their gardens, and continued unchanged. Their plant therefore ſhould ſeem to be C. *grœnlandica*, which by the Linnæan ſpecimen, and one I had long ago from Mr. Curtis's garden, appears to be diſtinct from *officinalis*.

The common Scurvy-graſs, here delineated from wild Norfolk ſpecimens, varies very much in ſize and luxuriance. Its root is annual. Stems angular, ſmooth, branched in a corymboſe manner, and in the month of May ornamented with numerous tufts of white flowers. Leaves all ſmooth and rather ſucculent; the radical ones on long footſtalks, of a roundiſh kidney-ſhape, a little waved or angular; the ſtem-leaves are ſeſſile, embracing the ſtem, alternate, oblong, angular or ſinuated. Flowering branches corymboſe, ſoon lengthened out into ſpikes. Bracteæ none. Calyx-leaves ovate, obtuſe, concave. Petals obovate, blunt, entire, with longiſh claws. Stamina 6, incurved. Pouch globular, crowned with a ſhort ſtyle, very ſlightly rugoſe, and ſcarcely perceptibly veined, by which this ſpecies is diſtinguiſhed from the *anglica* and *danica*, whoſe capſules are elliptical, and very ſtrongly marked with net-like prominent veins.

G.R.
III



Feb.ʳ 1809 Published by J.ᵉ Sowerby London

COCHLEARIA anglica.

Engliſh Scurvy-graſs.

TETRADYNAMIA Siliculoſa.

GEN. CHAR. *Pouch* turgid, rugged: valves gibbous, obtuſe. *Calyx* ſpreading, concave.

SPEC. CHAR. Radical leaves ovate, entire; thoſe on the ſtem lanceolate, toothed. Fruit elliptical, reticulated with veins.

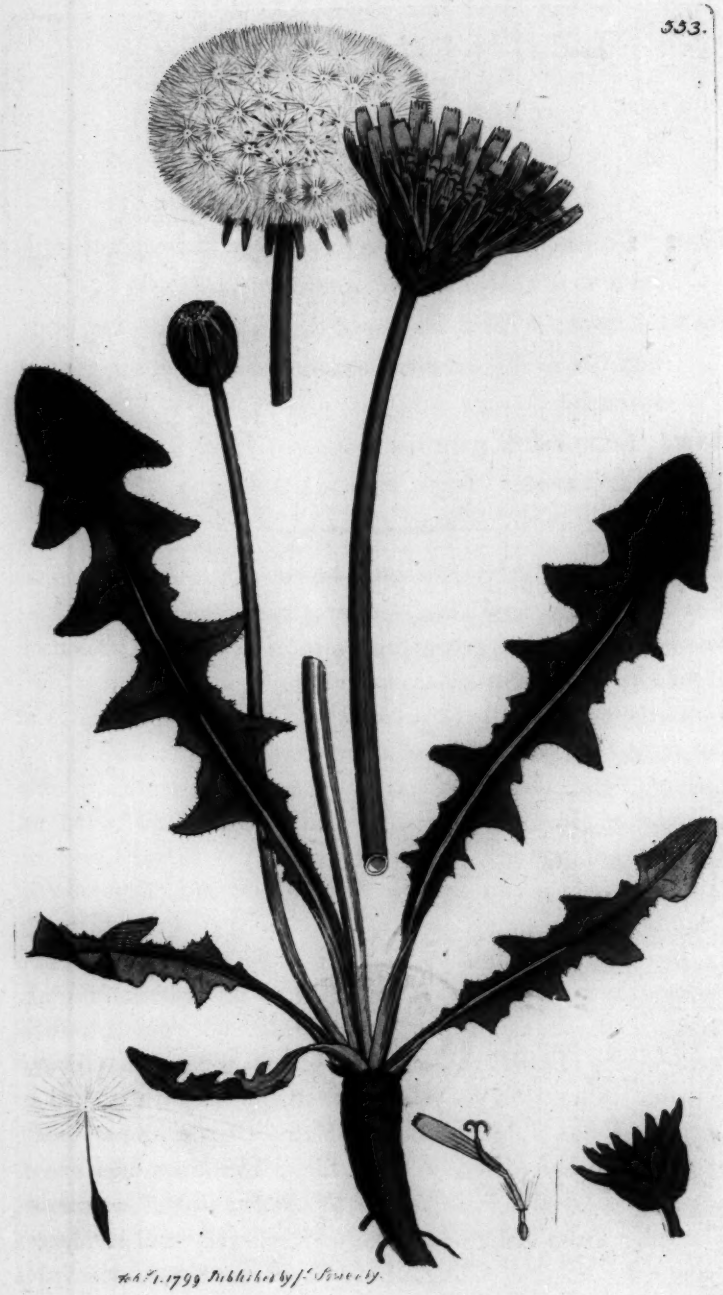
SYN. Cochlearia anglica. *Linn. Sp. Pl.* 903. *Hudſ.* 284. *With.* 574. *Fl. Dan. t.* 329.

C. folio ſinuato. *Raii Syn.* 303.

NOT unfrequent in a muddy ſoil on the Norfolk coaſt, from whence Mr. D. Turner communicated theſe ſpecimens. It is found alſo in Eſſex, Kent, and the ſouth of England, flowering about May. The root is annual. This differs from the C. *officinalis* at firſt ſight in being ſmaller. Its ſtem-leaves are narrower, lanceolate rather than ovate, toothed rather than ſinuated, and often nearly entire or but ſlightly waved. The radical ones are very unlike thoſe of the *officinalis*, being much ſmaller in proportion to the others, lanceolate or ovate, and for the moſt part perfectly entire. In the flowers of theſe two plants little difference is to be found; and indeed their herbage is ſo variable, that all we have hitherto mentioned would hardly diſcriminate them; and Mr. Hudſon's conjecture of their being mere varieties might be aſſented to, did not the fruit afford certain and clear marks of diſtinction. The pouches of the C. *anglica* are larger than thoſe of the laſt ſpecies, elliptical, crowned with a ſtyle one third of their own length; they are all over ſtrongly marked with a net-work of prominent veins, ſcarcely at all to be perceived in thoſe of the more common kind.

C. *danica* differs from both theſe in its triangular leaves, which all ſtand on footſtalks. Its fruit agrees with C. *anglica*.

G.R. III.



Feb.ry 1.1799 Published by J.s Sowerby

LEONTODON paluſtre.

Marſh Dandelion.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked. *Calyx* imbricated with flaccid ſcales. *Down* ſimple, on a footſtalk.

SPEC. CHAR. Outer ſcales of the calyx ſhorter, upright, ovate. Leaves ſinuated and toothed, nearly ſmooth.

SYN. Leontodon paluſtre. *Lyons. Faſc.*
L. Taraxacon. *With.* 679. *Hudſ.* 339 δ.

IN the preſent volume, *t.* 510, we have expreſſed an opinion that this plant was merely a variety of the common Dandelion; but ſince that article was written, a more accurate examination of wild ſpecimens, as well as of others raiſed from ſeed ſent from Cambridgeſhire by the Rev. Mr. Hemſted, has convinced us of our error, and we therefore loſe no time to acknowledge it.

The Marſh Dandelion grows generally on moors or wet commons. It was originally obſerved on Hinton Moor, Cambridgeſhire, and has been found on the Lower Common at Heydon, Norfolk, by the Rev. Mr. Bryant, flowering in June or July.

Root perennial, tap-ſhaped. Whole herb more ſlender and delicate than the common ſpecies. Leaves very various, ſlightly hairy, often quite ſmooth, ſcarcely runcinate, or with their teeth pointing backwards, but more or leſs deeply pinnatifid and dentate. Flower bright yellow, externally ſtriped with red or purple. Calyx ſcales gradually ſmaller outwards, and all erect, or rather cloſely preſſed to each other, the lower ones ovate, not linear. Head of ſeeds about half the ſize of L. *Taraxacum*. The calyx ſcales being none of them reflexed, and the leaves being leſs runcinate, diſtinguiſh it from the moſt ſtarved varieties of the *Taraxacum*, ſuch as the β of Hudſon figured by Petiver, II. *f.* 8.

G.R III.
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HEDYPNOIS hiſpidum.

Rough Hedypnois.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked, punctate. *Cal.* imbricated, with ſcales at the baſe. *Down* feathery, ſeſſile, unequal.

SPEC. CHAR. Stalks ſingle-flowered. Leaves dentate, rough. Florets hairy at their orifice, glandular at the tip.

SYN. Hedypnois hiſpidum. *Hudſ.* 340.

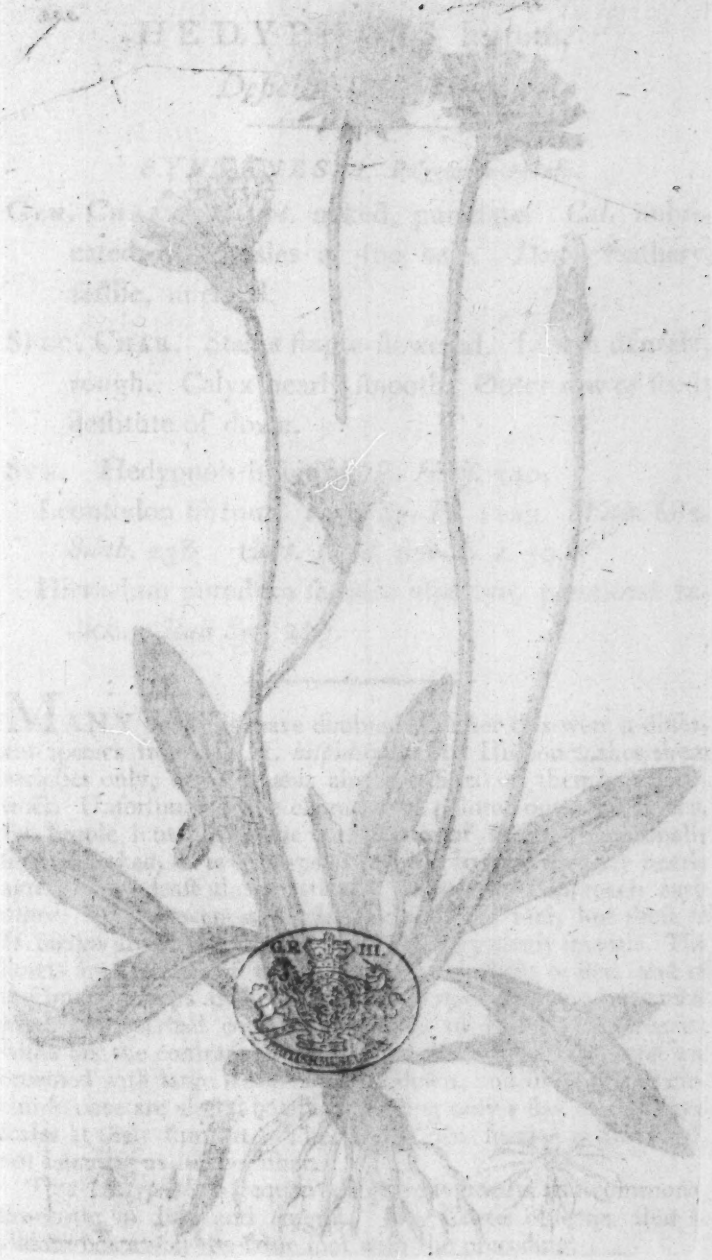
Leontodon hiſpidum. *Linn. Sp. Pl.* 1124. *With.* 681. *Relh.* 295. *Sibth.* 239. *Curt. Lond. faſc.* 5. *t.* 56.

Dens leonis hirſutus leptocaulis, Hieracium dictus. *Raii Syn.* 171.

PLENTIFUL in paſtures, on a chalk or limeſtone ſoil more eſpecially, flowering in July.

Root perennial, tapering, oblique, blackiſh. Leaves radical, oblong, tapering at the baſe, bluntiſh, more or leſs deeply toothed, and ſometimes pinnatifid, clothed with generally forked rigid hairs. Stalks ſeveral, upright, ſimple, roundiſh, clothed with ſimilar hairs. Flower drooping while in bud, afterwards erect, bright yellow. Calyx-ſcales erect, unequal and irregular, hairy. Florets furniſhed with a tuft of long yellow erect hairs at the top of their tube; their ſummit terminates in 5 teeth, at the back of each of which is a triangular cluſter of brown glands, firſt obſerved I believe by Mr. Sowerby. The ſeeds are uniform, ſlender, each crowned with a ſpreading tuft of ſeſſile feathery down, whoſe rays are unequal.

In the full-blown flower the hairs from the orifice of each floret may readily be perceived, and diſtinguiſh this plant from the H. *birtum*, and every other with which it could be confounded.


GR III

Feb.ª 1799 Published by Js Sowerby

HEDYPNOIS hirtum.

Deficient Hedypnois.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked, punctate. *Cal.* imbricated, with ſcales at the baſe. *Down* feathery, ſeſſile, unequal.

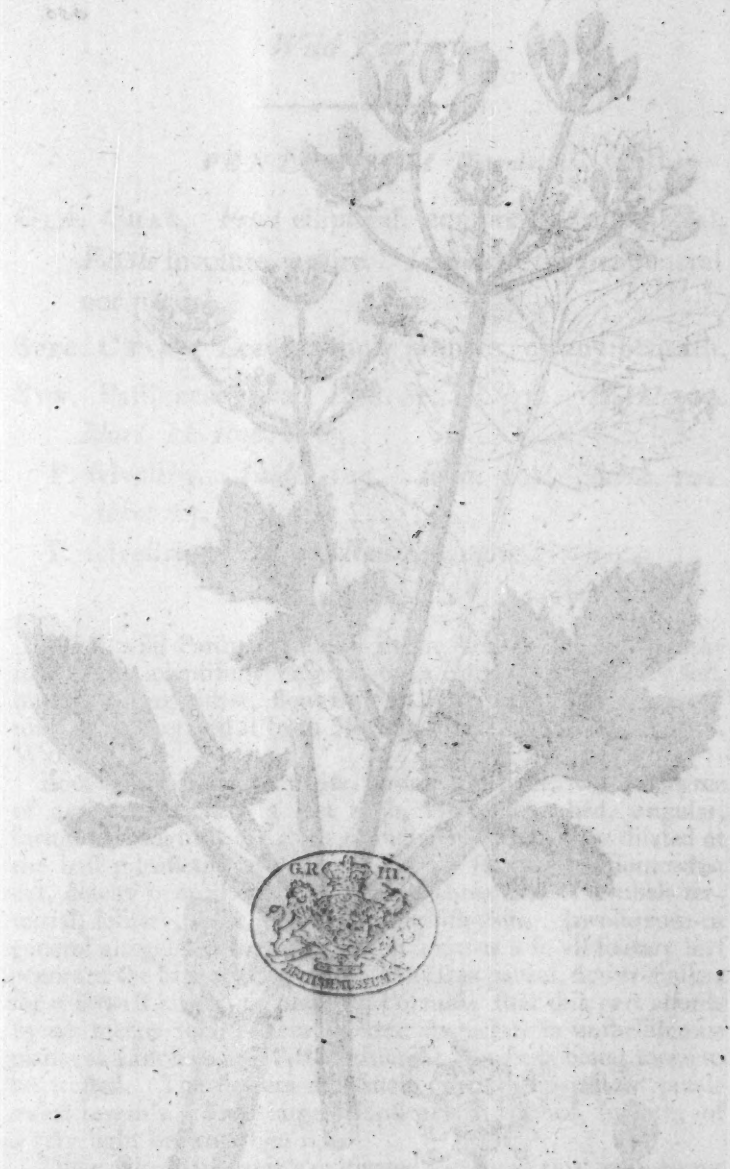
SPEC. CHAR. Stalks ſingle-flowered. Leaves dentate, rough. Calyx nearly ſmooth. Outer row of ſeeds deſtitute of down.

SYN. Hedypnois hiſpidum β. *Hudſ.* 340.
Leontodon hirtum. *Linn. Sp. Pl.* 1123. *With.* 682. *Sibth.* 238. *Curt. Lond. faſc.* 6. *t.* 59.
Hieracium pumilum ſaxatile aſperum, præmorsâ radice. *Raii Syn.* 167.

MANY botaniſts have doubted whether this were a different ſpecies from the H. *hiſpidum*. Mr. Hudſon makes them varieties only, but Linnæus always inſiſted on their being diſtinct. Unfortunately the character he pointed out is fallacious, the ſimple hairs; for the pubeſcence of both is occaſionally ſimple, forked, or even three-pointed. In herbage they nearly agree, or at leaſt the varieties of each cloſely approach each other. The flowers of both droop in the bud, but thoſe of H. *hirtum* are the ſmalleſt. The calyx is very nearly ſmooth. The florets are deſtitute of the yellow hairs at their orifice, and of the brown glands at the back of their apex, and the innermoſt have a leſs perfect corolla than thoſe of the circumference; while on the contrary the ſeeds produced by the innermoſt are crowned with large ſeſſile feathery down, and thoſe of the circumference are almoſt beardleſs, having only a few ſhort jagged ſcales at their ſummit. The root of this ſpecies is bitten off, not tapering as in the other.

This *Hedypnois* is frequent on gravelly heaths and commons, flowering in July and Auguſt. Mr. Curtis obſerves that it ſeldom occurs on the ſame ſpot with the preceding.

We adopt this genus of *Hedypnois* from Mr. Hudſon. What Juſſieu and Gærtner have called by the ſame name is the *Zacyntha* of Schreber's *Gen. Pl.* 534.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Feb.ʳ 1. 1799 Published by J.ᴹ Sowerby.

PASTINACA ſativa.

Wild Parſnep.

PENTANDRIA Digynia.

GEN. CHAR. *Fruit* elliptical, compreſſed almoſt flat. *Petals* involute, entire. *Involucra* neither general nor partial.

SPEC. CHAR. Leaves ſimply pinnate, downy beneath.

SYN. Paſtinaca ſativa. *Linn. Sp. Pl.* 376. *With.* 309. *Mart. Fl. Ruſt. t.* 83.

P. ſylveſtris. *Hudſ.* 125. *Relh.* 122. *Sibth.* 101. *Abbot* 67.

P. ſylveſtris latifolia. *Raii Syn.* 206.

THE wild Parſnep is found in the borders of fields and by road ſides, plentifully enough on a calcareous or chalky ſoil, but not on any other, flowering in July, and the root is biennial. We received it from Norfolk by favour of the Rev. Mr. Watts.

Root ſpindle-ſhaped, white, aromatic, ſweet, with a degree of acrimony. Stem 3 feet high, erect, branched, angular, furrowed, roughiſh. Leaves pinnate, with footſtalks dilated at the baſe; leaflets from 5 to 9, ſharply ſerrated and ſomewhat cut, downy beneath; the odd one in three lobes. Umbels terminal, ſolitary, erect, of ſeveral roughiſh rays. Involucrum in general altogether wanting, but ſometimes a ſmall ſolitary leaf occurs at the baſe of the general, as well as partial, flower-ſtalks; for it is well known to practical botaniſts that this part affords by no means ſuch certain generic characters in umbelliferous plants as Linnæus and Artedi thought, the ſeeds being more to be truſted. The flowers are ſmall, with deep-yellow petals rolled inwards. Fruit large, elliptical, flat, ribbed, ſmooth, of a very light brown when ripe.

The garden parſnep is a cultivated variety of this, with larger ſmoother leaves, and a mild eatable root. There is no reaſon to change the Linnæan name *ſativa*, which expreſſes that this is the ſpecies which is cultivated.

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III.
BRITISH MUSEUM

Feb.ry 1799 Published by Jas Sowerby London.

FONTINALIS minor.

Leſſer Water-moſs.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* with a lid and veil, ſeſſile, encloſed in an imbricated calyx.

SPEC. CHAR. Leaves ovato-lanceolate, concave, acute, in three ranks. Fructification terminal. Calyx-leaves pointed.

SYN. Fontinalis minor. *Linn. Sp. Pl.* 1571. *Hudſ.* 468. *With.* 788. *Abbot* 231. *Dickſ. Dr. Pl.* 17.

F. minor, foliis triangularibus, minùs complicatis, capitulis in ſummis ramulis ſeſſilibus. *Dill. in Raii Syn.* 79.

F. triangularis minor carinata, e cymis capſulifera. *Dill. Muſc.* 257. *t.* 33. *f.* 2.

A FIGURE of the moſt common *Fontinalis* has been given in our *t.* 359. The *minor* is a much more rare ſpecies, and is chiefly found on the walls which embank the Thames at Lambeth; and from thence, here and there, up to Wandſworth or further. The Rev. Mr. Abbot ſent this ſpecimen from the mill-dam at Oakley, Bedfordſhire, the place indicated in his *Flora Bedfordienſis* lately publiſhed.

This agrees with the above-mentioned ſpecies in habit, but its ſtems and branches are ſhorter, and leaves not ſo compreſſed. Its eſſential differences however reſide in the fructification, which is terminal, not lateral; the capſules are more ſlender, and ſtand on much more evident footſtalks within the calyx, in which reſpect they diſagree ſomewhat with the generic character; the calyx-leaves moreover are ſharp-pointed, not blunt as in the F. *antipyretica*.

Linnæus characterizes this moſs "*foliis paſſim geminis*," and adds underneath "*folia in ramis craſſioribus gemina*;" which explains his meaning, that the leaves are now and then, or here and there, in pairs. His erroneouſly uſing the word *paſſim*, as Mr. Hudſon does, to expreſs ſomething of rare occurrence, whereas it means the reverſe, a thing found *at every ſtep*, has led Dr. Withering and Mr. Abbot into a miſtaken tranſlation of the ſpecific character in queſtion.

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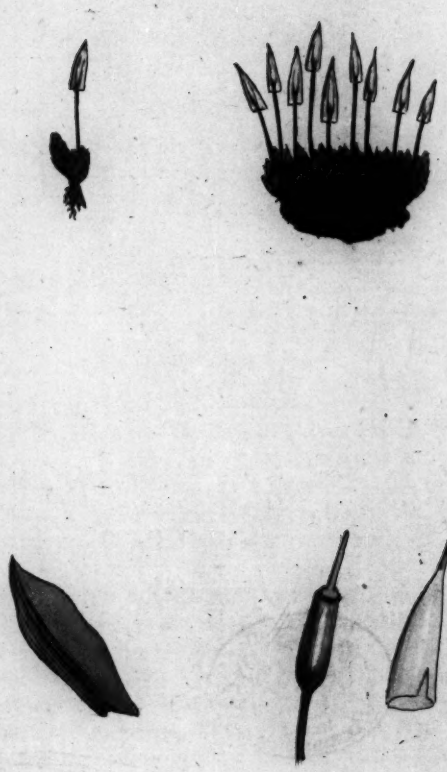


Feb.ʳ 1.1799 Published by Jᵗ Sowerby London.

BRYUM extinctorium.

Extinguiſher Bryum.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſ.* with a lid. *Veil* ſmooth. *Fruit-ſtalk* from a terminal tubercle.

SPEC. CHAR. Capſule cylindrical, entirely covered by the bell-ſhaped beaked veil. Leaves lanceolate, with a ſtrong rib, entire.

SYN. Bryum extinctorium. *Linn. Sp. Pl.* 1581. *Hudſ.* 475. *With.* 816. *Relh.* 402. *Dickſ. H. Sicc. faſc.* 8. 18. *Abbot* 239.

B. erectis capitulis, calyptrâ laxâ conicâ, foliis Serpilli pellucidis anguſtioribus. *Raii Syn.* 92.

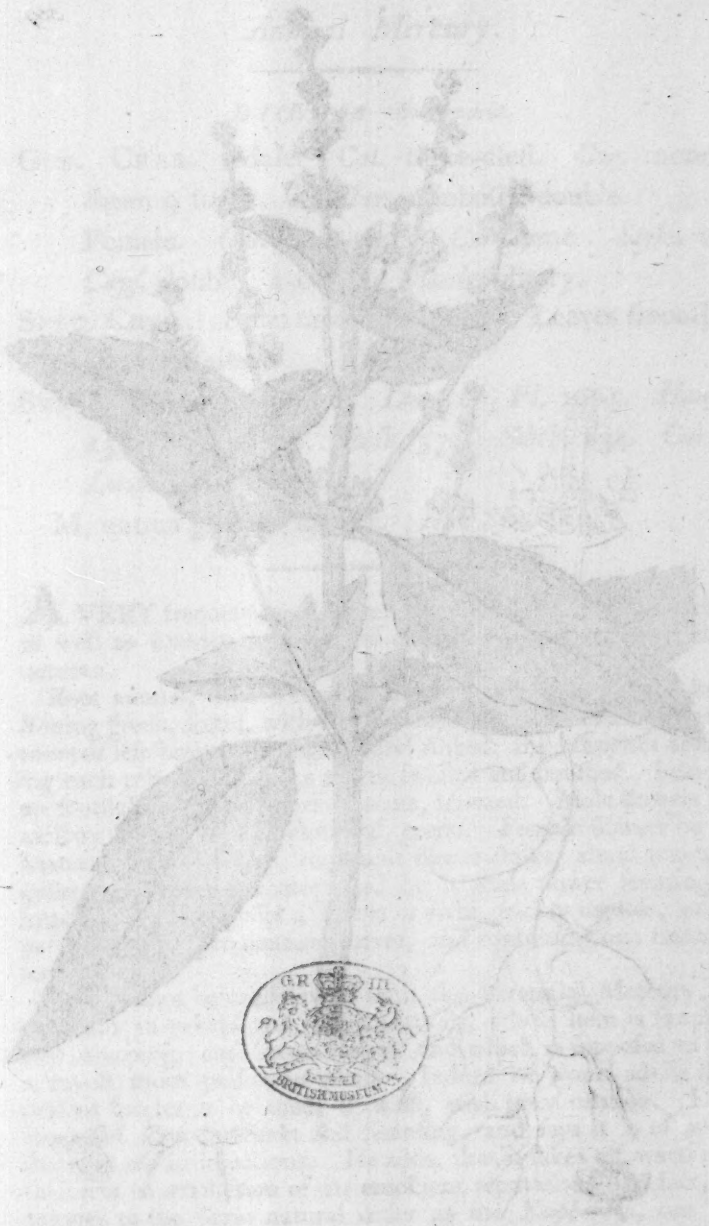
B. calyptrâ extinctorii figurâ minus. *Dill. Muſc.* 349. *t.* 45. *f.* 8.

Encalypta vulgaris. *Sibth.* 277.

FOUND under the ſhade of rocks or walls in a dry ſandy ſoil in many different places, perfecting its capſules in March and April. Mr. Teeſdale F. L. S. communicated it to us.

Root fibrous. Plants growing in tufts, generally ſimple and ſhort, with a few thick-ſet, lanceolate, entire leaves, curling in when dry, and furniſhed with a very ſtrong round reddiſh mid-rib. Stalk about an inch high, red. Capſule cylindrical, bluntiſh, with a ſlender cylindrical beak, and very minute teeth round the orifice. The pale ſemitranſparent veil beſt diſtinguiſhes this ſpecies; it is beaked at the top, bell-ſhaped, cut off horizontally below, and hangs down much below the baſe of the capſule.

The plant figured by Dillenius *t.* 45. *f.* 9, is eſteemed a variety by Linnæus, Hudſon, and Withering, though Hedwig makes it a ſpecies. It is in every part more luxuriant, the ſtem branched, mouth of the capſule more evidently fringed, and veil torn at the baſe into about 6 ſegments. In other reſpects it agrees, except in flowering later; for the difference of retaining its colour when dried we have found to be fallacious, the common B. *extinctorium* when quickly dried remaining as green as any moſs whatever for many years.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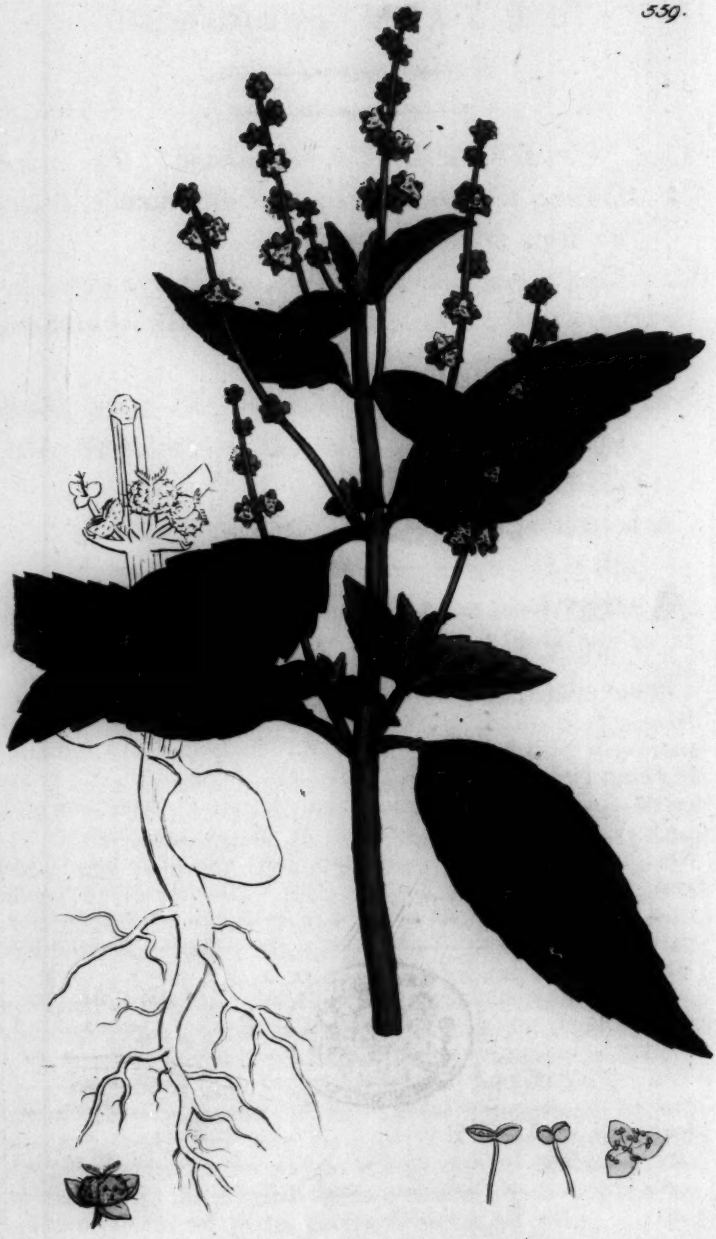


March 1. 1799 Published by Jas. Sowerby London.

MERCURIALIS annua.

Annual Mercury.

DIŒCIA Enneandria.

GEN. CHAR. Male. *Cal.* three-cleft. *Cor.* none. *Stam.* 9 to 12. *Antheræ* globoſe, double.

Female. *Cal.* three-cleft. *Cor.* none. *Styles* 2. *Capſ.* double, 2-celled. *Seeds* ſolitary.

SPEC. CHAR. Stem croſs-branching. Leaves ſmooth. Flowers ſpiked.

SYN. Mercurialis annua. *Linn. Sp. Pl.* 1465. *Hudſ.* 435. *With.* 392. *Relh.* 372. *Sibth.* 134. *Curt. Lond. faſc.* 5. *t.* 68.

M. annua glabra vulgaris. *Raii Syn.* 139.

A VERY frequent weed in cultivated ground about Norwich, as well as London, and ſeveral other towns, flowering in the autumn.

Root annual, branching. Herb ſmooth, of a darkiſh but ſhining green, fœtid, with a ſmell ſomething like elder. Stem more or leſs branched, angular and ribbed, the branches croſſing each other; the joints a little ſwelled and poliſhed. Leaves on footſtalks, oppoſite, ovate, acute, ſerrated. Male flowers in axillary ſolitary ſpikes, cluſtered, green. Female flowers on a ſeparate plant, axillary, on ſimple flower-ſtalks, about two together, ſometimes accompanied by a male flower ſeemingly imperfect. Seed-veſſel a double or twin prickly capſule, each part formed of two concave valves, and containing one ſmooth ſeed.

This cannot be confounded with the perennial Mercury ſo common in woods and hedge bottoms, whoſe ſtem is ſimple, root creeping, and leaves rough, and which is ſuppoſed to be a much more poiſonous plant. Indeed we would adviſe the preſent ſpecies to be uſed, if at all, with great caution. Ray ſpeaks of it as emollient and cleanſing, and ſays it is of very frequent uſe in injections. He adds, that it takes off warts: a ſufficient contradiction of its emollient reputation. In fact, it belongs to the ſame natural order as the *Euphorbia*, one of the moſt virulent plants we have, and very nearly agrees with it in ſenſible qualities.

G.R III.
BRITISH MUSEUM

March 1. 1799 Published by Jas Sowerby London.

RUSCUS aculeatus.

Butcher's Broom.

DIŒCIA Syngeneſia.

GEN. CHAR. Male. *Cal.* of 6 leaves. *Cor.* none. *Nectary* ovate, tubular, bearing the ſtamina. Female. *Cal. Cor.* and *Nect.* as in the male, but without ſtamina. *Style* 1. *Berry* 3-celled. *Seeds* in pairs.

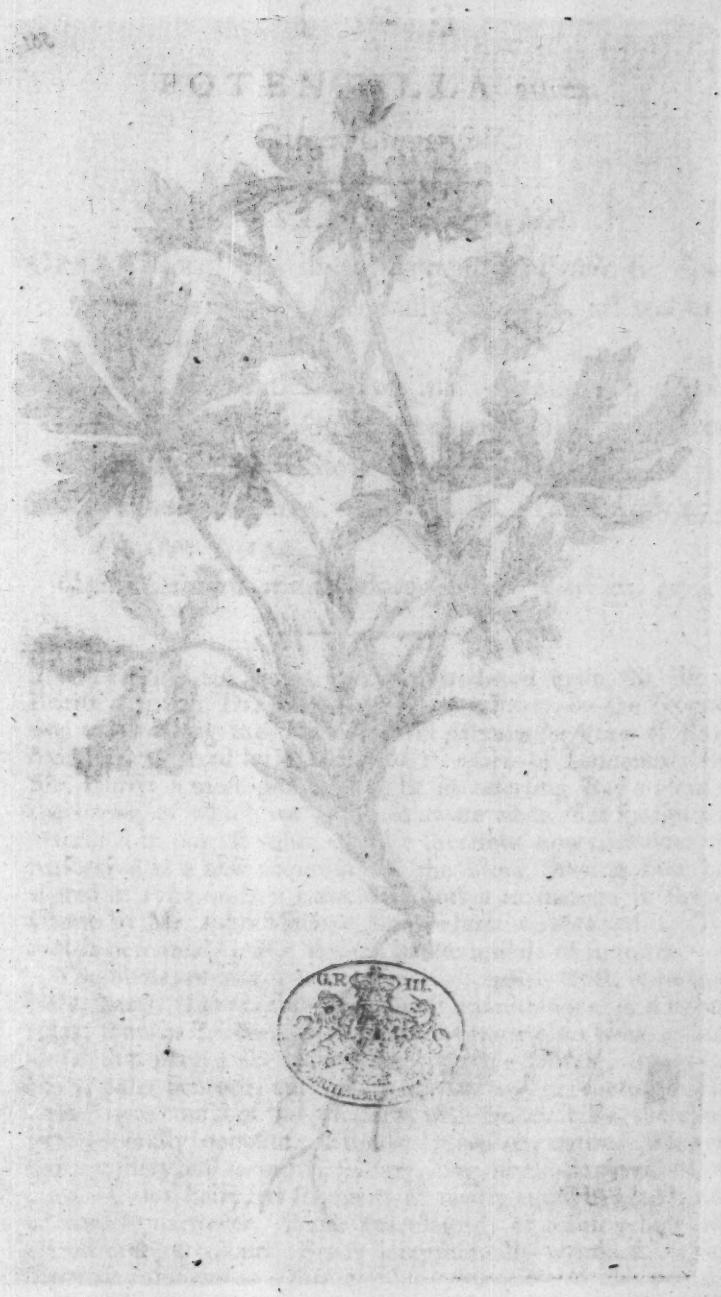
SPEC. CHAR. Leaves ovate, ſharply pointed, flowering on the upper ſide without a leaflet. Branches ſtraight.

SYN. Ruſcus aculeatus. *Linn. Sp. Pl.* 1474. *Hudſ.* 437. *With.* 68. *Relh.* 374. *Sibth.* 22. *Smith in Linn. Tranſ. v.* 3. 334.

Ruſcus. *Raii Syn.* 262.

ALTHOUGH not very common, the Butcher's Broom is found on ſhrubby heaths and in thickets in ſo many parts of England, as to render the indication of any particular place ſuperfluous. It flowers in March and April, and the root is perennial. The plant itſelf is biennial, and for one winter evergreen. However rigid and firm in texture, it is truly herbaceous, dying down to the root after ripening its fruit. The whole plant is devoid of pubeſcence. Stems about 2 feet high, round, ſtriated, branched, ſtraight and rigid. Leaves alternate, ſpreading in every direction, twiſted, hard, ovate, entire, tipped with a ſharp thorn, bearing a ſolitary flower about the middle of their upper ſide, whoſe flower-ſtalk, as Mr. Woodward has well obſerved, runs down within the outer coat of the leaf to its baſe. Calyx of 6 green leaves, the intermediate ones ſmalleſt. Nectary purpliſh, tubular, ſwelling, bearing on its edge three combined antheræ, and encloſing the rudiments of an abortive germen. The female flowers grow on a ſeparate root, and have no antheræ. Germen elliptical, with a blunt nearly ſeſſile ſtigma. Berry globular, large, ſcarlet, with a ſweet pulp, encloſing one or two large, ſhining, globular, almoſt tranſparent ſeeds, for moſt of the rudiments of the ſeeds, originally ſix, prove abortive.

The root has been uſed medicinally to remove obſtructions of the liver principally; one certain uſe of the plant at leaſt is its removing all obſtructions from the unequal ſurface of a butcher's block, as expreſſed in the Engliſh name.


POTENTILLA
G.R. III.

POTENTILLA aurea.

Golden Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 ſegments. *Petals* 5. *Seeds* roundiſh, naked, generally wrinkled, affixed to a ſmall dry receptacle.

SPEC. CHAR. Radical leaves in fives, obovate, deeply ſerrated, hairy, ſomewhat membranaceous: ſtem-leaves ternate. Stem nearly erect.

SYN. Potentilla aurea. *Linn. Sp. Pl.* 712. *With.* 475. *Fl. Dan. t.* 114.

Quinquefolium minus, flore aureo. *Ger. em.* 990.

POTENTILLA aurea is firſt introduced upon the liſt of Britiſh plants in Dr. Withering's new edition, on the ſuppoſition of its being the *Pentaphyllum parvum hirſutum* of Ray's Synopſis, referred by Hudſon to P. *opaca* of Linnæus. But Mr. Curtis is moſt probably right in referring Ray's plant to the *verna*, of which we were not aware when that ſpecies was deſcribed in our 1ſt volume. We therefore now introduce the real *aurea* as a new acquiſition to the Flora, having been gathered in 1793 on Ben Lawers and other mountains in Breadalbane by Mr. John Mackay, from whom we received it. The root is perennial, and it flowers in the middle of ſummer.

The ſtems are from 3 to 6 inches high, nearly erect, branched, leafy, hairy. Leaves thin and almoſt membranous, of a lighter green than in P. *verna*, with footſtalks more than twice as long as in that plant; the leaflets are 5, a little ſhining, ſomewhat hairy, paler beneath, and deeply ſerrated towards the top. The ſtem-leaves conſiſt of but 3 leaflets, with ſhorter ſtalks, the upper ones generally oppoſite. Stipulæ lanceolate, entire. Flower-ſtalks axillary and terminal, ſolitary, long, ſingle-flowered, hairy, erect. Calyx hairy, its ſegments all nearly equal in length, but alternately narrower. Petals heartſhaped, of a full yellow and almoſt orange colour. Seeds longitudinally wrinkled, which Gærtner conſiders as a diſtinguiſhing character of this genus.

Mr. Mackay thinks he has diſcovered another new *Potentilla* in the highlands, with which we hope in due time to make the public acquainted.

March 1.1799 Published by Jas Sowerby London.

MYRICA Gale.

Sweet Gale, or Dutch Myrtle.

DIŒCIA Tetrandria.

GEN. CHAR. Male. *Catkin* with concave ſcales. *Cor.* none. Female. *Catkin* with concave ſcales. *Cor.* none. *Styles* 2. *Berry* with 1 ſeed.

SPEC. CHAR. Leaves lanceolate, with ſhallow ſerratures. Stem ſhrubby.

SYN. Myrica Gale. *Linn. Sp. Pl.* 1453. *Hudſ.* 432. *With.* 208. *Relh.* 368. *Fl. Dan. t.* 327.
Gale frutex odoratus Septentrionalium, Elæagnus Cordo. *Raii Syn.* 443.

THIS delightfully fragrant ſhrub grows copiouſly in bogs on a gravelly ſoil, as at Woodbaſtwick, Norfolk, and at Derſingham in the north-eaſt corner of the ſame county, where our wild ſpecimens were gathered by the Rev. Mr. Sutton. We have received others gathered on Windleſham moor near Bagſhot, by the Rev. Mr. Abbot; and from Mr. Templeton of Belfaſt we have been favoured with monœcious ones, though in general the male catkins grow on different plants from the female ones. In March the catkins are fully formed; in May the flowers are in perfection; in Auguſt or September the branches are laden with ripe fruit, whoſe ſurface is ſprinkled with ſhining reſinous particles, eaſily rubbing off, and diffuſing a ſcent ſomething like red cedar. After the fruit has been kept dried 20 years it communicates to the fingers the ſmell of candied citron peel. In the north of Europe Linnæus tells us it is uſed for brewing inſtead of hops by poor people, and that wax may be obtained from it by boiling, as from M. *cerifera*.

This ſhrub grows to the height of 3 or 4 feet, and is much branched. Leaves deciduous, aromatic, alternate, lanceolate, tapering at the baſe, ſlightly ſerrated in the upper part, nearly ſmooth, paler beneath. Catkins lateral, alternate. We can ſcarcely call their ſcales, as Linnæus does, lunate; they are rather heartſhaped and pointed. Stamina 4, brown, as are alſo the ſtyles. Mr. Sowerby obſerved the firſt ſcales of the female catkin to be hairy towards the tip, by which they may be diſtinguiſhed even in the bud.

G.R
III.

March 1. 1799 Published by Jas Sowerby London

ERIOPHORUM polyſtachion.

Broad-leaved Cotton-graſs.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated on all ſides. *Cor.* none. *Seed* 1, inveſted with very long hairs.

SPEC. CHAR. Stem round. Leaves flat. Spikes ſeveral, on flower-ſtalks.

SYN. Eriophorum polyſtachion. *Linn. Sp. Pl.* 76. *Dickſ. Tr. of Linn. Soc. v.* 2. 289. *H. Sicc. faſc.* 4. 1. *With.* 72. *Leers t.* 1. *f.* 5.

Linagroſtis paniculâ minore. *Vaill. Par. t.* 16. *f.* 2.

OBSERVED by Mr. Dickſon on bogs in Northamptonſhire, afterwards near Dunſtable, Bedfordſhire, in Yorkſhire, Cumberland, and very commonly in Scotland, from whence we received it by favour of Mr. Mackay. It is perennial, flowering in April, and bearing its white tufts of ſeeds from June to Auguſt or September.

Root fibrous, not creeping. Stem erect, 2 feet high, round, ſtriated, ſmooth, leafy. Leaves alternate, much ſhorter than the ſtem, flat, ſlightly keeled, linear-lanceolate, ſmooth, towards the top more acutely keeled, ſheathing at the baſe. The floral leaves are 2 or 3, dilated and membranous at their baſe. Spikes ſeveral, ovate, on ſtalks, which are ſometimes branched, as in our figure, but more frequently ſimple. Glumes lanceolate, filmy. After flowering, the flower-ſtalks are lengthened out, and the ſpikes are pendent; the white hairs which inveſt the ſeed alſo grow out to a conſiderable length, though leſs ſo than in the more common ſpecies, figured in our next plate, which was always in England confounded with this till Mr. Dickſon diſtinguiſhed them.

The down of both ſpecies is uſed in poor mountainous countries for ſtuffing pillows, but there is a prevailing opinion of its not being wholeſome to ſleep on. It is too brittle to be manufactured into thread of any kind.

G.R. III.

March 1. 1799 Published by J.t Sowerby London.

ERIOPHORUM anguſtifolium.

Common Cotton-graſs.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, imbricated on all ſides. *Cor.* none. *Seed* 1, inveſted with very long hairs.

SPEC. CHAR. Stem round. Leaves channelled, triangular at the tip. Spikes ſeveral, on flower-ſtalks.

SYN. Eriophorum anguſtifolium. *Hoffm. Fl. Germ.* 19. *Dickſ. Tr. of Linn. Soc. v.* 2. 289. *H. Sicc. faſc.* 4. 2. *With.* 72.

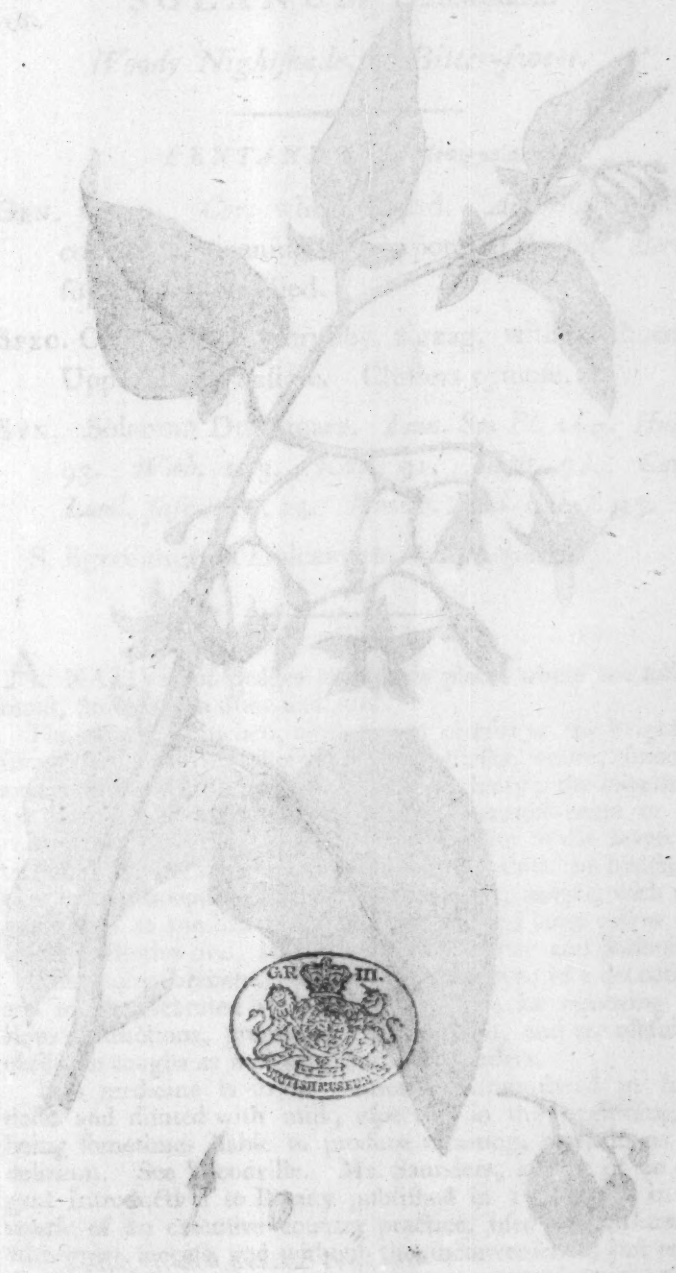
E. polyſtachion. *Hudſ.* 21. *Relh.* 20. *Sibth.* 24. *Curt. Lond. faſc.* 4. *t.* 9.

Linagroſtis. *Raii Syn.* 435.

L. paniculâ majore. *Vaill. Par. t.* 16. *f.* 1.

VERY common and plentiful on turfy bogs, flowering in April, and its brilliant white tufts look, throughout the ſummer, like feathers ſcattered over the country. Root creeping. Stem round, more ſlender than the laſt, ſtriated, ſmooth. Leaves but little ſhorter than the ſtem, ſemicylindrical, channelled, ſmooth, narrower than in E. *polyſtachion*, ſheathing at the baſe, terminating in a triangular point; the floral ones 2 or 3, linear, flat, various in length. Spikes from 3 to 5, ovate, on ſtalks of different lengths, but always (as far as we have ſeen) ſimple. Glumes brown with a filmy edge. After flowering, the ſpikes are partly erect, partly drooping, but by no means pendent, and the white hairs are protruded to full twice the length of the kind laſt deſcribed, which renders this much more conſpicuous and handſome.

Cattle feed readily upon the leaves of this graſs in the northern countries early in the ſpring, before other herbage is ſufficiently advanced, but in more favourable climates it is not worth the farmer's notice.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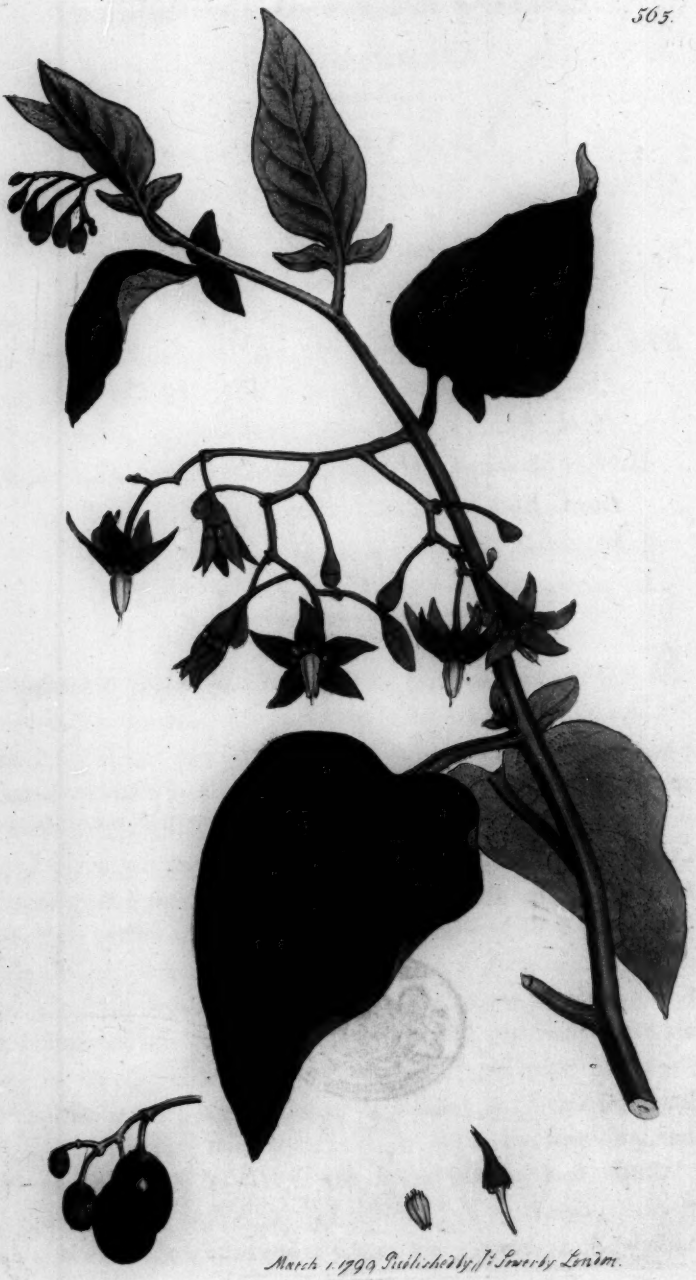


March 1. 1799 Published by J.t Sowerby Londin.

SOLANUM Dulcamara.

Woody Nightſhade, or Bitter-ſweet.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped. *Antheræ* ſlightly connected, opening by two pores at the top. *Berry* ſuperior, two-celled.

SPEC. CHAR. Stem ſhrubby, zigzag, without thorns. Upper leaves haſtate. Cluſters cymoſe.

SYN. Solanum Dulcamara. *Linn. Sp. Pl.* 264. *Hudſ.* 93. *With.* 253. *Relh.* 91. *Sibth.* 78. *Curt. Lond. faſc.* 1. *t.* 14. *Woodv. Med. Bot. t.* 33.

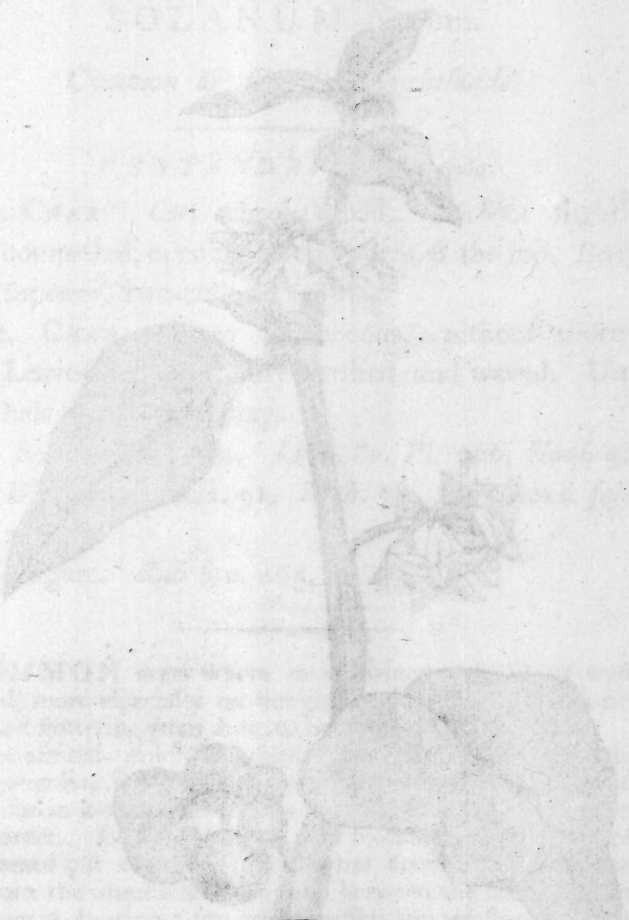
S. lignoſum, ſeu Dulcamara. *Raii Syn.* 265.

A NATIVE of hedges and ſhady places where the ſoil is moiſt, flowering in June and July.

The woody, branched, twiſted ſtem climbs to the height of ſeveral feet. Leaves alternate, on footſtalks, entire, ſmooth, except on the ſea ſhores, where they are hairy; the lowermoſt are heartſhaped and undivided; the uppermoſt more or leſs completely halberdſhaped. Cluſters oppoſite to the leaves or terminal, having the general appearance, but not the ſtructure, of a cyme, drooping. Flowers very elegant, purple, with two green dots at the baſe of each ſegment, and large yellow antheræ. Berries oval, ſcarlet, very juicy, bitter and poiſonous.

The young branches, or the root, employed in a decoction, are much celebrated by ſome practitioners for removing various obſtructions, promoting expectoration, and are uſeful in obſtinate coughs as well as rheumatic diſorders.

This medicine is to be cautiouſly adminiſtered in ſmall doſes and diluted with milk, eſpecially in the beginning, it being ſometimes liable to produce vomiting, convulſions and delirium. See Woodville. Mr. Saunders, author of an elegant Introduction to Botany publiſhed in 1792, has, in the courſe of an extenſive country practice, uſed the *dulcamara* with great ſucceſs, and without the inconveniences juſt mentioned.


G.R. III.

March 1. 1799 Published by J.s Sowerby London.

SOLANUM nigrum.

Common or Garden Nightſhade.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped. *Antheræ* ſlightly connected, opening by two pores at the top. *Berry* ſuperior, two-celled.

SPEC. CHAR. Stem herbaceous, without thorns. Leaves ovate, bluntly toothed and waved. Umbels lateral, drooping.

SYN. Solanum nigrum. *Linn. Sp. Pl.* 266. *Hudſ.* 92. *With.* 254. *Relh.* 91. *Sibth.* 78. *Curt. Lond. faſc.* 2. *t.* 14.

S. vulgare. *Raii Syn.* 265.

COMMON every where in cultivated as well as waſte ground, more eſpecially on dunghills, thriving moſt in a rich ſoil, and flowering from June to September.

Root annual, much branched. Stem branched, ſpreading, leafy, angular, ſometimes winged, and often of a woody hardneſs; for in our mildeſt ſeaſons, as in hot climates, it ſurvives the winter. Leaves alternate, on footſtalks, ovate, waved, lengthened out at the baſe, ſomewhat downy. Umbels lateral, from the interſtices of the ſtem between the leaves, drooping, downy, bearing a few white muſky-ſcented flowers. Berries black, globular. Hudſon mentions their being ſometimes yellow.

The whole herb is fœtid, narcotic, celebrated for promoting perſpiration and urine, but to be uſed with great caution. An infuſion of from one to three grains of the dried leaf, is ſaid to be amply ſufficient for a doſe, a larger quantity occaſioning violent ſickneſs, with head-ach, giddineſs, and other dangerous ſymptoms. An ointment made of theſe leaves and hog's lard was uſed by Solano de Luque, a famous Spaniſh phyſician, about two centuries ſince, in the cure of conſumptions. The patient was to be buried for ſome time up to the chin in the earth, and afterwards rubbed with this ointment. See Dr. Simmons's Obſervations on the Treatment of Conſumptions. Few practitioners now would expect any good from this preſcription, at leaſt as far as the nightſhade is concerned.

G.R. III.

March 1. 1799 Published by J.t Sowerby London.

See next Page

OROBANCHE elatior.

Tall Broom-rape.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* in 2, lobed, lateral segments. *Cor.* ringent. *Capſ.* of 1 cell, with 2 valves, and many ſeeds. A gland at the baſe of the germen beneath.

SPEC. CHAR. Stem ſimple. Corolla tubular; lower lip in three acute equal ſegments. Stamina downy. Style ſmooth.

SYN. Orobanche elatior. *Sutton Tr.* of *Linn. Soc. v.* 4. 178. *t.* 17.

THE Rev. Mr. Sutton, of Norwich, firſt obſerved and well aſcertained this ſpecies, and he has favoured us with the uſe of the original drawing, made under his inſpection, in order to complete our hiſtory of the genus as far as it is known in England.

The O. *elatior* has hitherto been confounded with the *major*, *t.* 421, for it occurs full as frequently as that in fields, thickets, and hilly buſhy places on a gravelly ſoil, flowering in July and Auguſt.

It differs from O. *major*, in being taller, more yellowiſh, and with a much longer and more numerous ſpike of flowers; Mr. Sutton having ſometimes counted above 100. The root generally adheres to that of *Trifolium pratenſe*, or *Centaurea Scabioſa*. The leaves of the calyx are united at the baſe before. The corolla is leſs inflated; its border is much curled and fringed; its upper lip ſometimes a little cloven. The ſtamina, ſo uſeful in characterizing the ſpecies of *Orobanche*, are inſerted into the tube above its baſe, and are downy on the inſide from the bottom upwards for half their length, being ſmooth in the upper part, not clothed with glandular roughneſs as in O. *major*. The germen and ſtyle, which in that are downy, in this are ſmooth. Stigma inverſely heartſhaped, yellow.—The O. *minor*, *t.* 422, has a purple ſtigma, the ſtamina ciliated, not clothed with hairs, the middle ſegment of the lower lip lobed and undulated, the calyx of two ſeparate leaves, and the whole plant is a great deal ſmaller.

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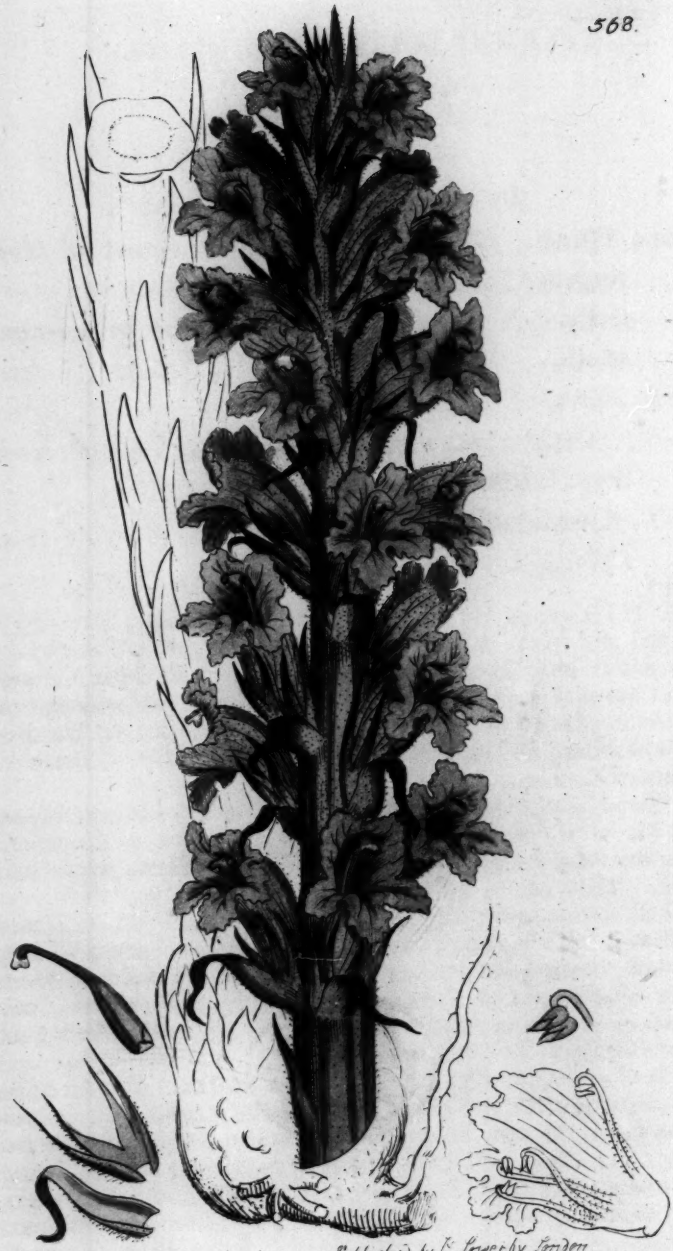


March 1. 1799 Published by J.s Sowerby London

SCROPHULARIA vernalis.

Yellow Figwort.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* ſomewhat globoſe, reverſed. *Capſ.* ſuperior, two-celled.

SPEC. CHAR. Leaves heartſhaped, doubly ſerrated, downy. Flower-ſtalks axillary, ſolitary, forked, leafy.

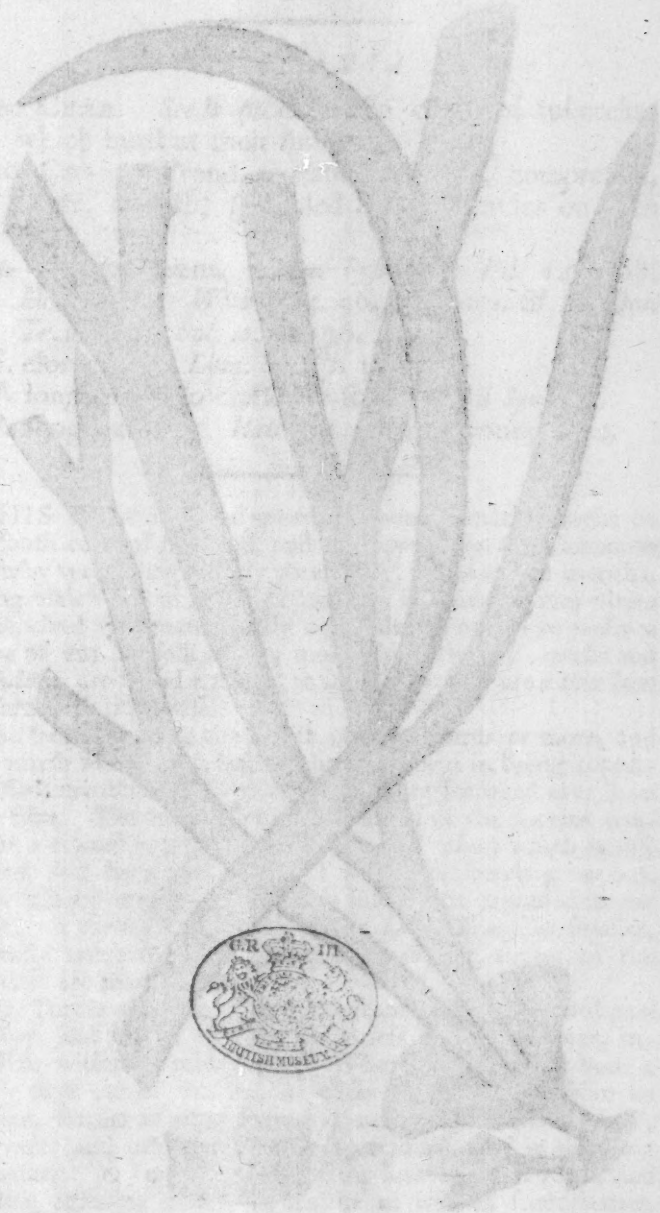
SYN. Scrophularia vernalis. *Linn. Sp. Pl.* 864. *Hudſ.* 275. *With.* 554. *Fl. Dan. t.* 411.

S. flore luteo. *Ger. em.* 717.

THIS grows in ſhady moiſt places, but rarely, flowering in April and May, and the root is biennial. Mr. Sowerby gathered it near Bury, in company with Sir Thomas Cullum, and has alſo received wild ſpecimens from a lane leading from Merton Abbey to Mitcham, Surrey, by favour of the Rev. Mr. Lyſons, the learned and elegant illuſtrator of the environs of London.

Stem hairy, about two feet high, ſquare or five-angled, and in the latter caſe the leaves grow three together, as Linnæus in his manuſcripts defines them; but they are full as often oppoſite. They are heartſhaped, pointed, ſharply and doubly ſerrated, veiny, moſt hairy beneath, and ſtand on footſtalks. Flower-ſtalks axillary, about as long as the leaves, ſolitary, forked, bearing many flowers accompanied by ſerrated or entire bracteæ. Calyx hairy. Corolla inflated, yellow, contracted at the mouth. Capſule ovate, acute, with many minute ſeeds.

It is curious to obſerve a certain reſemblance or affinity between this plant and the pretty Peruvian genus of *Calceolaria*, one ſpecies of which, the *pinnata*, is now frequent in our gardens; the fruit and ſeeds, the calyx, the habit and hue of the whole plant, ſtrikingly agree: and there is another ſpecies, C. *ovata*, between which and this *Scrophularia* the conformity is ſtill greater; ſo that a ſomewhat different form of corolla, and the *Calceolaria* having but 2 ſtamina, are their only generic diſtinctions. In every thing elſe they are very much nearer akin than this and other ſpecies of *Scrophularia*.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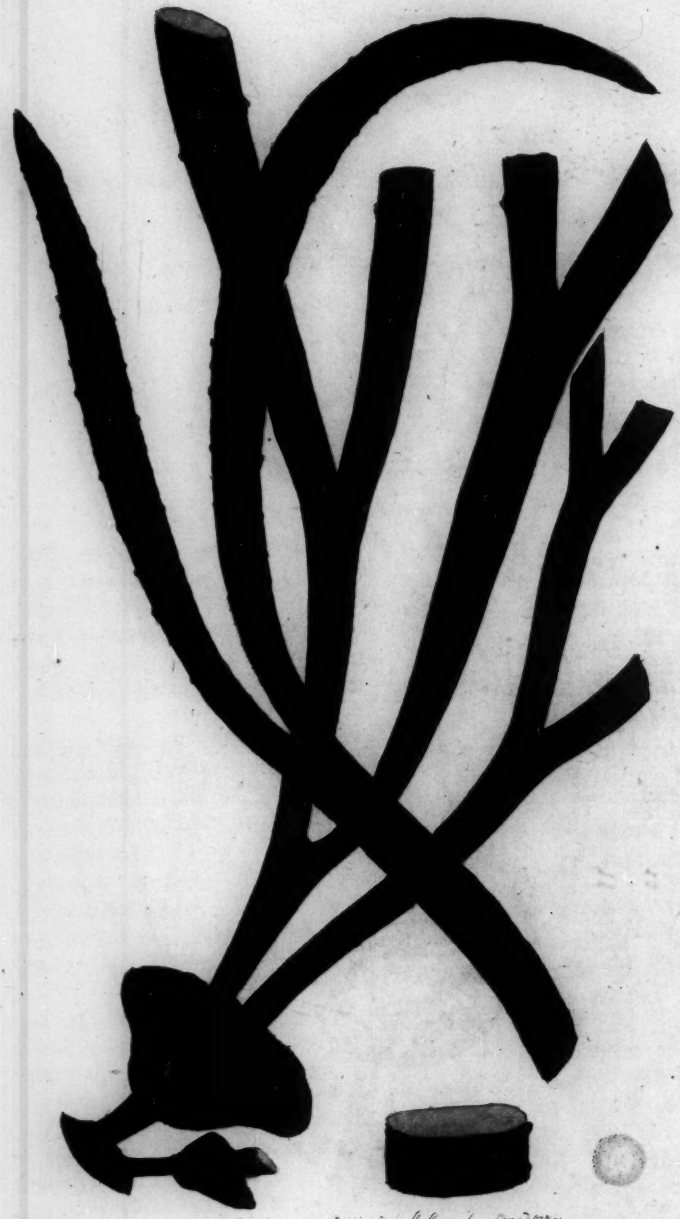


March 1. 1780. Published by J. Sowerby, London.

FUCUS loreus.

Thong Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in cluſtered tubercles, which burſt at their ſummits.

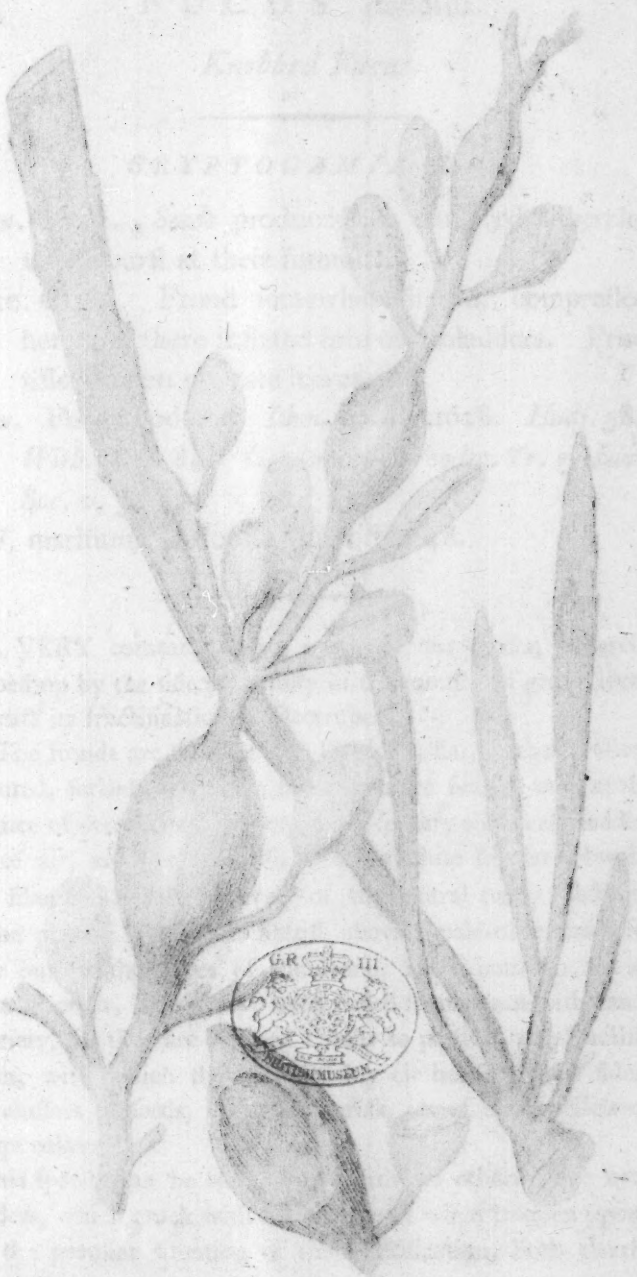
SPEC. CHAR. Frond repeatedly forked, compreſſed, acute, ſmooth, ſprinkled with tubercles on each ſide.

SYN. Fucus loreus. *Linn. Syſt. Veg. Ed.* 14. 968. *Hudſ.* 583. *With. v.* 4. 96. *Gooden. & Woodw. Tr. of Linn. Soc. v.* 3. 176.
F. elongatus. *Linn. Sp. Pl.* 1627.
F. longo anguſto craſſoque folio. *Raii Syn.* 43.
F. fungis affinis. *Raii Syn.* 43, in a young ſtate.

THIS Fucus is found growing upon ſubmarine rocks on the ſouth coaſt of England, and is thrown upon the Yarmouth beach by very ſtrong eaſterly winds only, in the winter months, during which it is in fruit. Hence Mr. D. Turner, from whom we received ſpecimens, juſtly concludes it not to be really a native of our Norfolk ſhores, more eſpecially as F. *ovalis* and *articulatus* are found attached to its root, which are never ſeen at Yarmouth otherwiſe.

The frond grows to the length of 2 or 3 yards or more, and very much reſembles a leather thong, except in being repeatedly dichotomous. Tubercles of ſeeds are ſcattered over it on both ſides. The moſt eſſential diſtinction of the ſpecies conſiſts in a dilated cup (like ſome kinds of *Peziza*) which is firſt formed, and from the centre of which the fronds grow out, either ſolitary or in pairs. This is ſufficiently expreſſed in our figure. A variety mentioned in the *Linn. Tranſ.* is ſmaller, generally narrower, leſs branched, and the angles of the branches are more obtuſe.

Mr. Turner obſerves, that "the frond is in the central part "pulpy, and full of capillary colourleſs entangled fibres, in- "viſible without a microſcope. When this plant has been 2 "or 3 days out of the ſea, a yellow mucus exudes from its "pores, ſimilar to what Reaumur miſtook for *antheræ* in F. "*ſerratus* and others. The ſeeds are diſcharged in the ſame "manner. F. *loreus* is a connecting link between *Fucus* and "*Ulva*, agreeing greatly in texture as well as fructification "with U. *diaphana*."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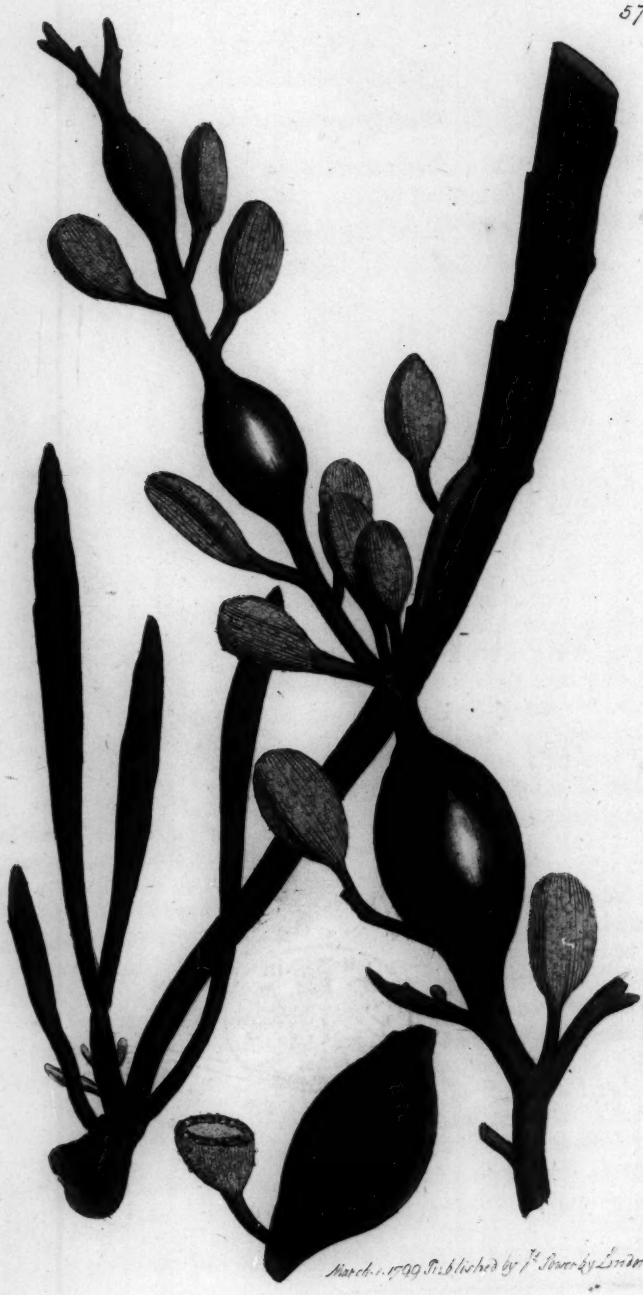


March 1.1799 Published by J.t Sowerby London.

FUCUS nodoſus.

Knobbed Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in cluſtered tubercles, which burſt at their ſummits.

SPEC. CHAR. Frond ſomewhat forked, compreſſed, here and there inflated into oval bladders. Fructification on obovate leaves.

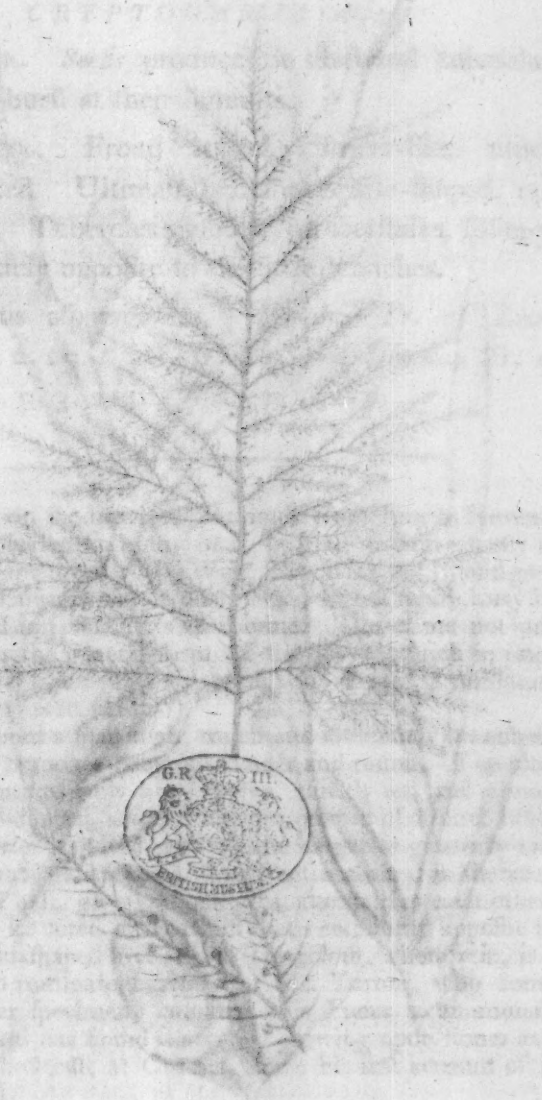
SYN. Fucus nodoſus. *Linn. Sp. Pl.* 1628. *Hudſ.* 584. *With. v.* 4. 84. *Gooden. and Woodw. Tr. of Linn. Soc. v.* 3. 190.

F. maritimus nodoſus. *Raii Syn.* 48.

A VERY common Fucus upon all our coaſts, generally waſhed up by the tide plentifully in the mouths of great rivers. It bears its fructification in December.

The fronds are three or four feet long, flat, leathery, olive-coloured, forked, and when full grown are ſwelled out, at the diſtance of every 2 or 3 inches, into a ſolitary elliptical bladder, full of air, and occupied alſo by a few white ſlender cobweb-like filaments, formed merely of the central pulpy ſubſtance of the plant. Numerous flattiſh obovate pale-olive proceſſes grow out of the edges of the frond, upon footſtalks, in an alternate order, which have been called leaves, not with exact propriety, for they are deſtined chiefly to produce the fructification, with which they are thickly clothed on both ſides. The cluſters of ſeeds, when cut acroſs, are of a full yellow or orange colour.

This ſpecies can be confounded with no other. The oval bladders, which crack with a ſharp report when trodden upon, and the peculiar ſituation of the fructification, both clearly diſtinguiſh it.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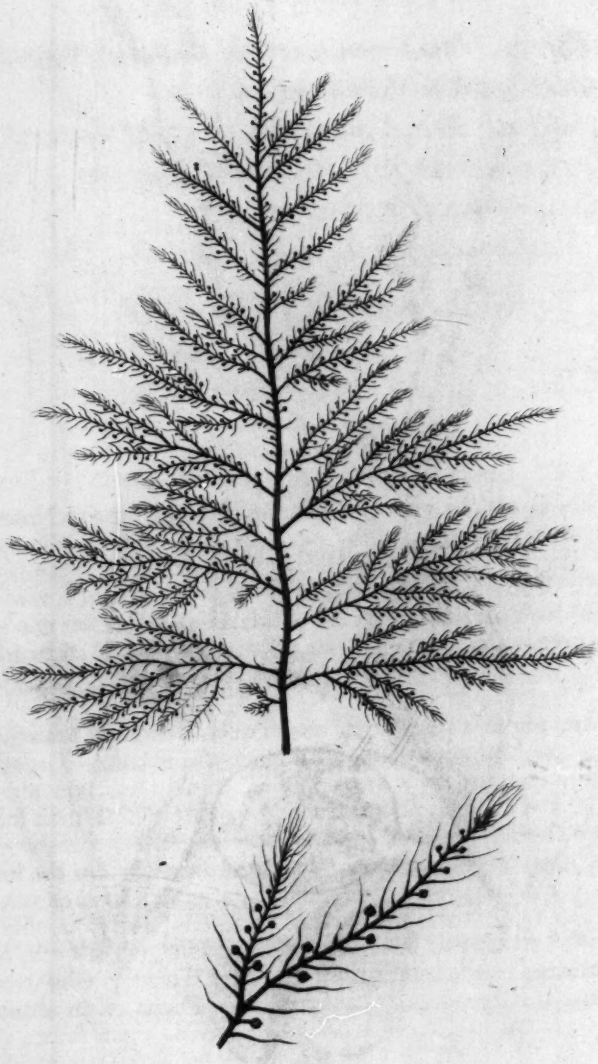


Author. Published by J. Sowerby, London.

FUCUS aſparagoides.

Aſparagus Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in cluſtered tubercles, which burſt at their ſummits.

SPEC. CHAR. Frond round, thread-like, much branched. Ultimate branches briſtle-ſhaped, oppoſite. Tubercles globular, on footſtalks, ſolitary, alternately oppoſite to the little branches.

SYN. Fucus aſparagoides. *Woodw. Tr. of Linn. Soc. v. 2. 29. t. 6. Gooden. and Woodw. Tr. of L. Soc. v. 3. 214. With. v. 4. 117.*

FOUND on the beach at Yarmouth from June to November, though ſeldom in abundance, bearing its fruit chiefly in Auguſt and September. Mr. Wigg firſt diſcovered it, and gave it to Mr. Woodward, whoſe deſcription, with a figure, may be found in the Linn. Society's 2d volume. The name not unaptly expreſſes the general form of the plant, which in ſome meaſure, though not preciſely, recalls the idea of a miniature garden Aſparagus in fruit.

It grows about a ſpan high, much and alternately branched, the ſtem and branches being all ſlender and round. The ultimate ramifications only are oppoſite, thickly ſet, and almoſt pectinate, awl-ſhaped, acute, ſcarcely a quarter of an inch long, and often ſhorter; indeed each of the longeſt is generally oppoſed by a much ſhorter one. The fructifications, in the form of a ſmall red ball, grow on footſtalks, alternate to each other, or irregularly ſcattered, but each of them conſtantly oppoſite to one of the awl-ſhaped branches. The colour, when freſh, is a beautiful deep tranſparent crimſon. Mr. Turner, who communicated our ſpecimen, conſiders this Fucus as an annual. Mr. Woodward has found it actually growing upon ſtones and pebbles on the coaſt at Cromer, ſince his firſt account of it was publiſhed.

G.R. III.
BRITISH MUSEUM

April 1799 Published by J. Sowerby London.

LICHEN pulmonarius,

Lungwort Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

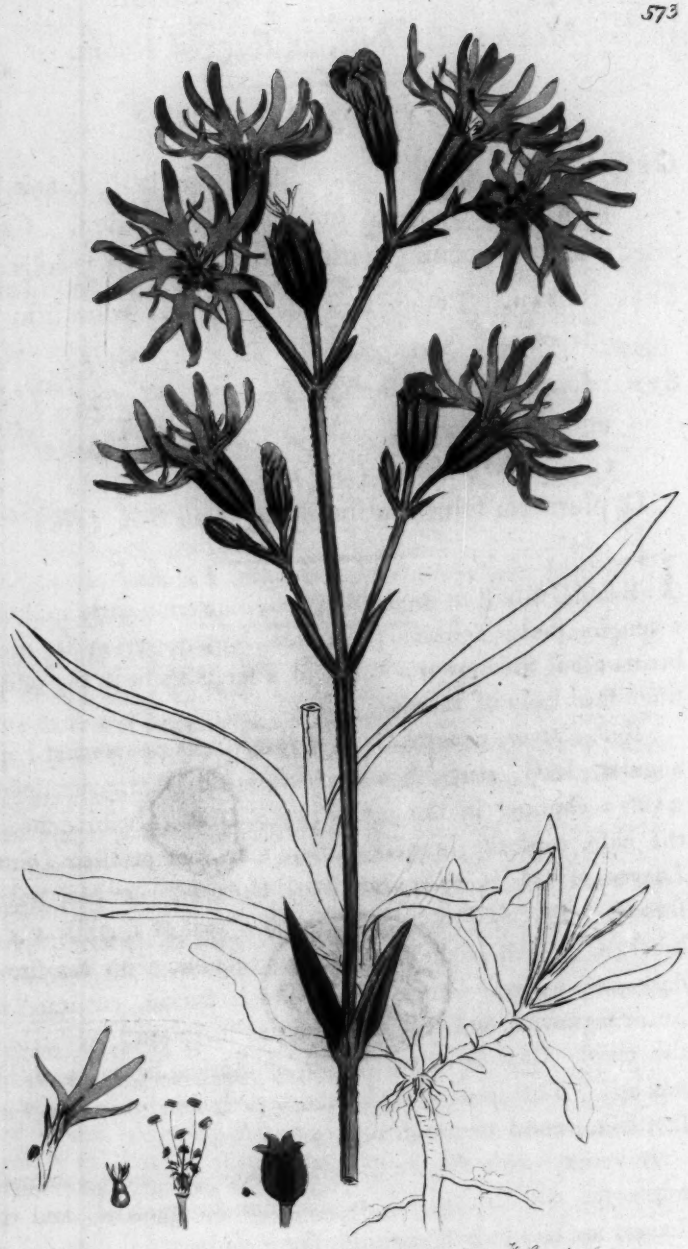
SPEC. CHAR. Leafy, laciniated, obtuſe, ſmooth; above green and pitted, ſomewhat reticulated; downy beneath. Shields moſtly marginal.

SYN. Lichen pulmonarius. *Linn. Sp. Pl.* 1612. *Hudſ.* 542. *With. v.* 4. 54. *Relh.* 432. *Sibth.* 331. *Abbot.* 267.
Lichenoides peltatum arboreum maximum. *Raii Syn.* 76.
L. pulmoneum reticulatum vulgare, marginibus peltiferis. *Dill. Muſc.* 212. *t.* 29. *f.* 113.
Pulmonaria reticulata. *Hoffm. Pl. Lich. t.* 1. *f.* 2.

MOST plentiful in the northern or mountainous countries, where it clothes the trunks of large trees with a rich leafy garment. The fronds grow a little imbricated, but conſiderably raiſed from the bark into which their roots are inſerted. They are leathery, green, deeply divided, irregularly and bluntly lobed, ſtrongly pitted, the interſtices forming a kind of network, which towards the margin of the frond is powdery or warty, bearing the ſuppoſed *pollen*. The under ſide is downy, bliſtered, pale, with a correſpondent network of brown veins. Shields for the moſt part marginal, but not always; they are nearly ſeſſile, flat, cheſnut-coloured, with an elevated, ſmooth, green border. They are found at all times of the year, and in tolerable plenty.

This Lichen is uſed on the Continent not unſucceſsfully, in a decoction with milk, to cure coughs. It is bitter, aſtringent and mucilaginous, and promotes expectoration, much like *Polygala vulgaris*, *t.* 76, which it is ſaid to reſemble in taſte. It ſeems to be an inſtance of a fooliſh principle having led to truth, for it was firſt uſed to cure coughs becauſe its figure reſembled the lungs. So the *Orchis* tribe were uſed as ſtimulants for a peculiar purpoſe, on account of the ſhape of their roots. Like many other Lichens it dies wool brown; ſome ſay of a deep orange.

GR III
BRITISH MUSEUM



April 1. 1789. Published by J. Sowerby London.

LYCHNIS Flos-Cuculi.

Meadow Lychnis, or Ragged Robin.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* of one leaf, oblong. *Petals* 5, with claws; their limb moſtly divided. *Capſ.* ſuperior, opening with 5 teeth, of 1 or 5 cells.

SPEC. CHAR. Petals four-cleft. Fruit roundiſh, of one cell.

SYN. Lychnis Flos-Cuculi. *Linn. Sp. Pl.* 625. *Hudſ.* 199. *With.* 432. *Relh.* 177. *Sibth.* 145. *Abbot.* 100. *Curt. Lond. faſc.* 1. *t.* 33.

L. plumaria ſylveſtris ſimplex. *Raii Syn.* 338.

FREQUENT in moiſt meadows, flowering early in June, when its pretty delicate petals are ſeen quivering to every breeze; but the mower's ſcythe ſoon levels them in the undiſtinguiſhed heap of meadow hay.

Root fibrous, perennial. Stem erect, one or two feet high, angular, leafy, roughiſh with little briſtles that point downwards; clammy in the upper part; ſometimes branched at the baſe, and the branches often take root at their joints. Leaves united at their inſertion, lanceolate, entire, nearly ſmooth. Panicle forked, erect, with a pair of ſmall leaves or bracteæ at each ſubdiviſion. Calyx tubular, with ten ſtrong dark-purple ribs. Petals roſe-coloured, flaccid, cut into four linear ſegments, and crowned with two ſharp erect teeth above the claw. Capſule of a roundiſh cylindrical figure, with but one cell. The ſeeds are numerous, each ſtanding on a little footſtalk, round a central receptacle.

A variety with double flowers, whoſe petals are extremely numerous and thickly ſet, is common in gardens, and the flowers are ſaid to be ſometimes found white.

G.R. III.
REGIS ET MUSEI

Published by J. Sowerby, London.

SENECIO tenuifolius.
Hoary Groundſel.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked. *Down* ſimple. *Cal.* cylindrical, ſcaly at the baſe; ſcales dead at the tip.

SPEC. CHAR. Radius ſpreading. Leaves pinnatifid, ſomewhat revolute; paler and ſhaggy beneath. Stem erect, cottony.

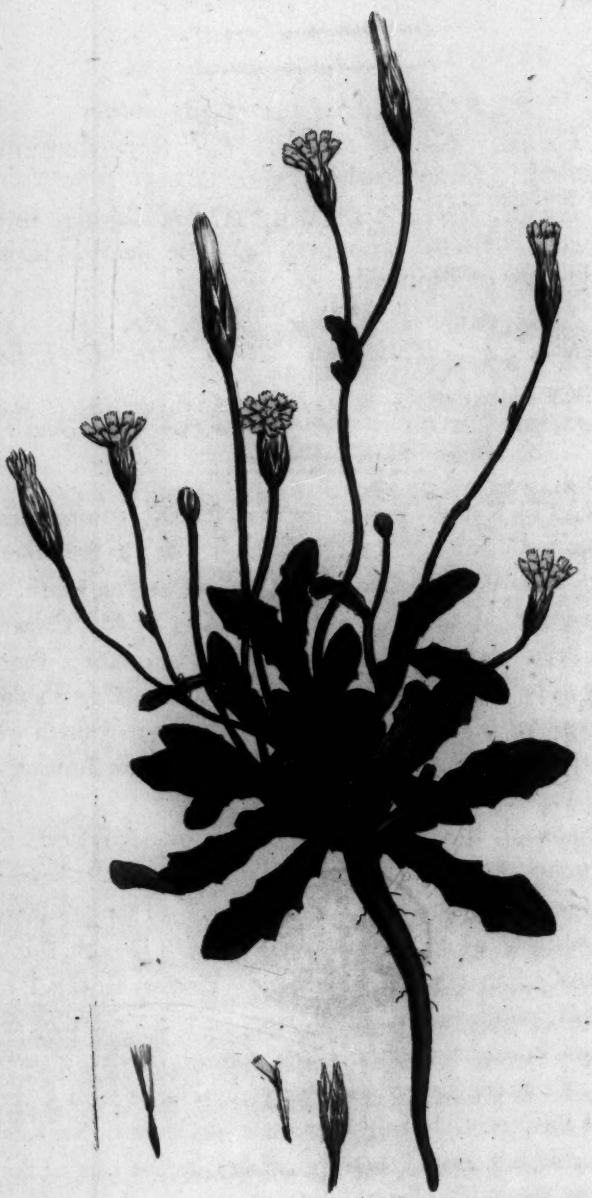
SYN. Senecio tenuifolius. *With.* 723. *Jacq. Auſtr. t.* 278. *Sym. Syn.* 181. *Sibth.* 253.
S. erucifolius. *Hudſ.* 366. *Relh.* 316. *Abbot.* 182. *Curt. Lond. faſc.* 5. *t.* 64.
Jacobæa Senecionis folio incano perennis. *Raii Syn.* 177.

SENT from Holm near the ſea, Norfolk, by the Rev. Mr. Sutton. No plant is more variable in the appearance of its foliage. On a calcareous ſoil, its favourite ſituation, the leaves are very much revolute, and quite white beneath with a thick cottony web, of which the ſtem always more or leſs partakes; in damp ſhady places they are almoſt flat, and green, though always paler and ſomewhat ſhaggy, on the under ſide. Such are the extremes of the two varieties marked by Dr. Withering, but intermediate ſpecimens are always to be found.

The root is perennial, moderately creeping. Stem ſimple, erect, wand-like, 1 to 3 feet high, leafy, furrowed, ſhaggy. Leaves numerous, alternate, pinnatifid; the uppermoſt with linear ſegments, very little toothed. Flowers corymboſe, bright-yellow. Calyx ſcales broad, green, more or leſs woolly, with a white membranous border, a little browniſh at the tip, though leſs ſo than in ſome other ſpecies; thoſe at the baſe few and ſmall. Rays broad, ſpreading, but ſoon revolute. Seed-down long, rough. It flowers in July and Auguſt, and is not a very common plant.

This is certainly diſtinct from S. *erucifolius* of Linnæus, the authentic ſpecimen of which from Scania, deſcribed in both editions of *Sp. Pl.* though with wrong ſynonyms, much more nearly reſembles S. *ſylvaticus*, of which I am inclined to think it a variety.

G.R.
III.
BRITISH MUSEUM



April 1. 1799 Published by J. Sowerby London.

HYPOCHÆRIS glabra.

Smooth Cat's-ear.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* chaffy. *Cal.* ſomewhat imbricated. *Down* feathery.

SPEC. CHAR. Nearly ſmooth. Calyx oblong, imbricated. Stem branched, a little leafy. Leaves dentate or ſinuated.

SYN. Hypochæris glabra. *Linn. Sp. Pl.* 1140. *Hudſ.* 347. *With.* 692. *Abbot.* 173. *Curt. Lond. faſc.* 3. *t.* 53.

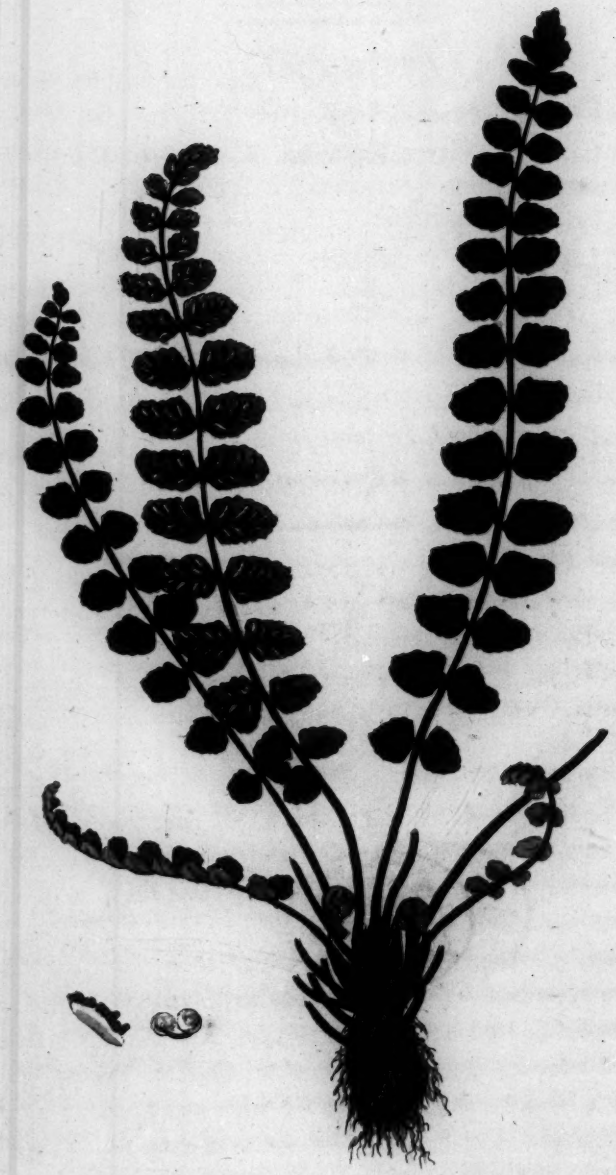
Hieracium parvum in arenoſis naſcens. *Raii Syn.* 166.

A NATIVE of dry gravelly or ſandy heaths, communicated from Bedfordſhire by the Rev. Mr. Abbot. It was firſt obſerved in Norfolk by the Rev. Mr. Bryant, upon Cawſton heath, and has ſince that time been pointed out to us by Mr. Crowe in turnep fields about Norwich, but in ſo luxuriant a ſtate as ſcarcely to be known for the ſame ſpecies. Mr. Curtis's figure more approaches to this ſtate. Ours expreſſes its growth when out of the reach of all manure. It flowers from June to the end of Auguſt.

Root annual, tapering. Stems ſeveral, round, ſmooth, ſimple or branched, ſpreading, and if branched generally bearing a leaf or two at each diviſion. Leaves oblong, or tongue-ſhaped, blunt, toothed, and if luxuriant ſinuated, nearly ſmooth, ſhining, ſometimes ciliated and ſlightly hairy. Flowers terminal, ſolitary, erect, paliſh yellow, ſmall, open only in a morning for 3 or 4 hours in bright weather. Calyx conical, ſlender, glaucous, ſmooth, its ſcales tipped with purple. Florets with 5 teeth. Chaff of the receptacle long, lanceolate, deciduous. Seed-down feathery, at firſt erect, then ſpreading; in the central florets the top of the ſeed is lengthened out into a ſtalk that elevates the down, which in thoſe of the circumference is ſeſſile.

This herb is milky and bitter like moſt of its natural family.

G.R. III.
BRITISH MUSEUM



April 1. 1793 Published by Jas Sowerby London.

ASPLENIUM Trichomanes.

Common Maidenhair Spleenwort.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructif.* in ſcattered lines. *Involucrum* originating laterally from a vein, and burſting inwardly.

SPEC. CHAR. Frond pinnated. Leaflets roundiſh, crenate.

SYN. Aſplenium Trichomanes. *Linn. Sp. Pl.* 1540. *Hudſ.* 452. *With.* 768. *Relh.* 388. *Sibth.* 268. *Abbot.* 225. *Bolt. Fil. t.* 13. *Woodv. Med. Bot. t.* 204. *Dickſ. H. Sicc. faſc.* 4. 17.
Trichomanes. *Raii Syn.* 119.

NOT uncommon on ſhady rocks, old walls, the north ſide of churches and ſimilar ſituations, where its fructification may be found at almoſt all ſeaſons.

Root tufted, woolly, perennial. Fronds numerous, ſpreading, lanceolate, conſiſting of a ſmooth, dark-brown, poliſhed ſtalk, bearing many pairs of oppoſite, roundiſh, or rather ovate, crenate leaflets, of a deep green; their under ſide producing 6 or 8 oblong ſpots of fructification, whoſe covering membrane opens towards the mid-rib. The numerous capſules conſiſt of two hemiſpheres bound by an elaſtic jointed ring, as in moſt of the *Filices dorſiferæ*.

This is a pretty fern, not unworthy of a place on ſhady rockwork, and about grottos or fountains. Its medical virtues are very doubtful. It has been uſed as a ſubſtitute for the Maidenhair of warmer climates, *Adiantum Capillus Veneris*, from which a ſyrup is made, perfumed with orange-flowers, and called Syrup of Capillaire. The virtues of even this, as a cure for coughs and colds, are probably owing to the ſugar more than to the Maidenhair.

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ERROR.

The plate of Fucus pedunculatus is erroneouſly engraved 546, inſtead of 545; and that of Conferva villoſa 545, which ought to be 546.

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G.R. III.
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